SUP

NOVEMBER 2014

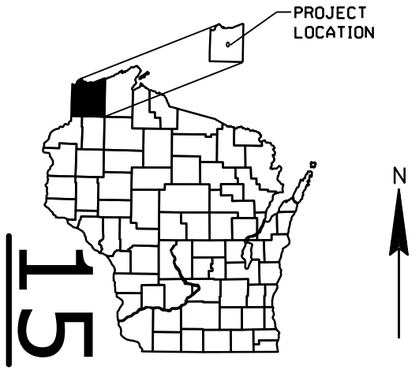
ORDER OF SHEETS

Section No.	1	Title
Section No.		Typical Sections and Details (Includes Erosion Control Plan)
Section No.		Estimate of Quantities
Section No.		Miscellaneous Quantities
Section No.		Right of Way Plat
Section No.		Plan and Profile
Section No.		Standard Detail Drawings
Section No.		Sign Plates
Section No.		Structure Plans
Section No.		Computer Earthwork Data
Section No.		Cross Sections

TOTAL SHEETS = 414

PROJECT ID: 1190-43-71
WITH: N/A

COUNTY: DOUGLAS



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SUPERIOR - ROCKMONT ROAD

(SUPERIOR SAFETY & WEIGHT FACILITY #72)

USH 2/53

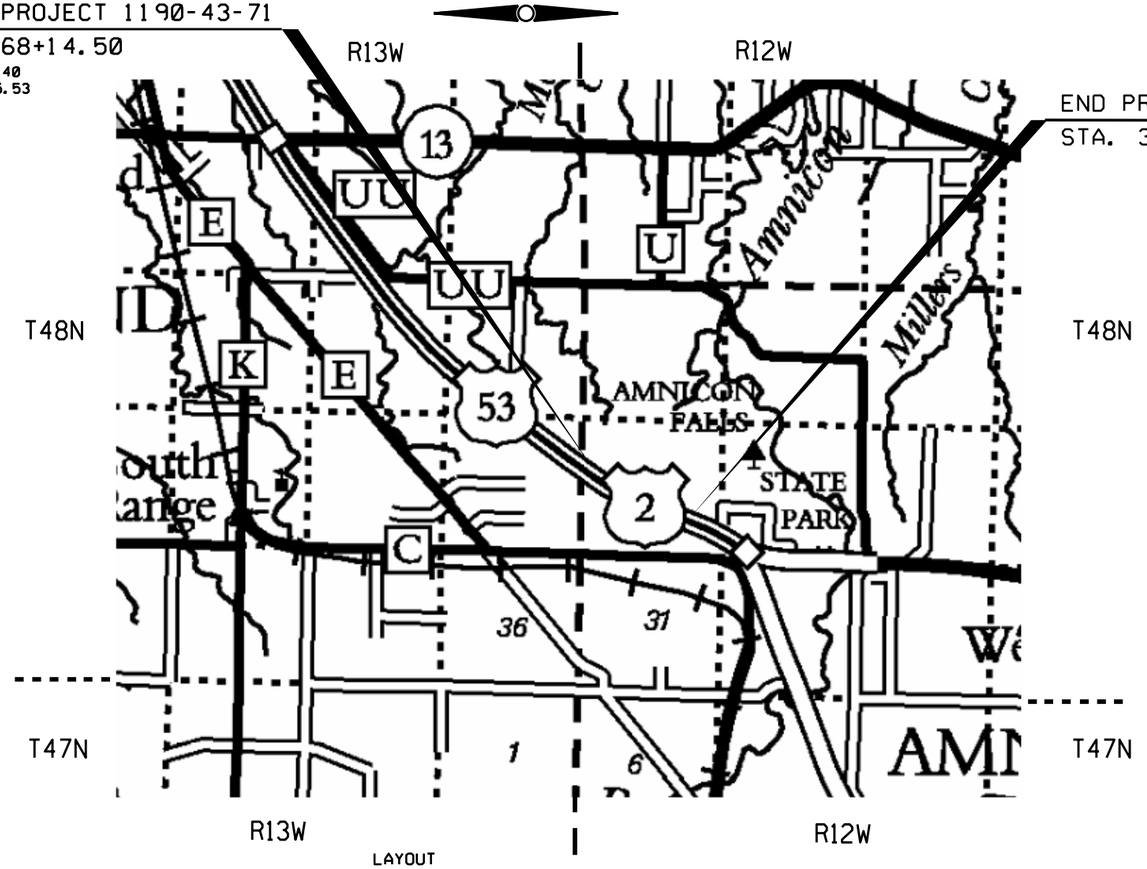
DOUGLAS COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1190-43-71	———	—

STATE PROJECT NUMBER
1190-43-71

BEGIN PROJECT 1190-43-71
STA. 268+14.50
Y= 537765.40
X= 1476905.53

END PROJECT 1190-43-71
STA. 353+97.43



TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

Coordinates on this plan are referenced to the Douglas County Coordinate System

THE PROFESSIONAL SEAL DOES NOT COVER THE BUILDING PLANS PREPARED BY VANTAGE ARCHITECTS

DESIGN DESIGNATION

		USH 2/53	SWEF
A.D.T. (2005)	=	20,750	824
A.D.T. (2025)	=	25,750	1036
D.H.V.	=	1,107	46
D.D.	=	58/42	-
T.	=	6.7%	100%
DESIGN SPEED	=	70 mph	50 mph
ESALS	=	5,794,229	5,553,694

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ORIGINAL PLANS PREPARED BY
CLARK-DIETZ, INC.

(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	CLARK-DIETZ, INC.
Project Manager	ROBERT SPOERL
BHM Examiner	
BHM Supervisor	TODD MATHESON
C.O. Examiner	

APPROVED FOR BUREAU OF HIGHWAY MAINTENANCE

DATE: 2/03/2014 (Signature)

E

FILE NAME : P:/trans/w11020/plans/TITLESHT.dgn PLOT DATE: 10/22/01

INDEX OF SHEETS

SHEET TITLE
INDEX OF SHEETS & ABBREVIATIONS
STANDARD DETAIL DRAWINGS LIST
GENERAL NOTES & UTILITY CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
WELL/SEPTIC PLANS
PAVING DETAILS
REMOVALS
PLAN AND PROFILES
CROSS SECTION MATCH LINES
EROSION CONTROL AND DRAINAGE
STORM SEWER AND UTILITIES
SIGNING AND PAVEMENT MARKING
LIGHTING
WEIGH IN MOTION SYSTEM
STATIC SCALE SYSTEM
BUILDING ARCHITECTURAL PLANS
TRAFFIC CONTROL AND CONTRUCTION STAGING
ALIGNMENT PLAN/SUPER ELEVATION DIAGRAMS/TIES & CONTROL
SOIL BORINGS
CROSS SECTIONS

ABBREVIATIONS

AC.	ACRES
A.E.C.P.R.C.	APRON END CULVERT PIPE REINFORCED CONCRETE
A.E.C.P.S.	APRON END CULVERT PIPE STEEL
ALUM.	ALUMINUM
A.P.	ACCESS POINT
B.	BARN
B.A.D.	BASE AGGREGATE DENSE
C.A.B.C.	CRUSHED AGGREGATE BASE COURSE
C.S.M.	CERTIFIED SURVEY MAP
DOC.	DOCUMENT
F.E.	FIELD ENTRANCE
G.	GARAGE
H.	HOUSE
L.	LENGTH OF VERTICAL CURVE
L.C.	LONG CHORD OF CURVE
L.C.B.	LONG CHORD BEARING
mi	MILE
NO.	NUMBER
P.C.C.	PORTLAND CEMENT CONCRETE
P.H.E.	PERMANENT HIGHWAY EASEMENT
P.O.B.	POINT OF BEGINNING
P.C.	POINT OF CURVATURE
P.C.C	POINT OF COMPOUND CURVATURE
P.I.	POINT OF INTERSECTION
P.R.C.	POINT OF REVERSE CURVATURE
P.T.	POINT OF TANGENCY
P.V.C.	POINT OF VERTICAL CURVE
P.V.I.	POINT OF VERTICAL INTERSECTION
P.V.R.C.	POINT OF VERTICAL REVERSE CURVATURE
P.V.T.	POINT OF VERTICAL TANGENCY
P.L.	PROPERTY LINE
R.	RADIUS
R/W	RIGHT OF WAY
S.D.	SPECIAL DITCH
S.L.	SECTION LINE
S.	SILO/SHED
sq	SQUARE
S.F.	SQUARE FEET
STA.	STATION
SWEF	SAFETY & WEIGHT ENFORCEMENT FACILITY
T.	TANGENT
T.L.E.	TEMPORARY LIMITED EASEMENT
TYP.	TYPICAL ELSEWHERE IN PLAN
e	SUPERELEVATION RATE
VOL.	VOLUME
W.I.M.	WEIGH-IN-MOTION

GENERAL NOTES

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT LOCATION OF UTILITIES AND EXERCISE CARE DURING CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM.
2. NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.
3. ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH BACKFILL GRANULAR.
4. MISCELLANEOUS REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALT SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.
5. CURB AND GUTTER GRADES GIVEN ARE ON THE FLANGE LINE. DISTANCES SHOWN FOR CURB AND GUTTER IN RADII ARE MEASURED ALONG FLANGE.
6. ALL DISTANCES ARE GROUND DISTANCES.
7. EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADII POINTS IN CURB & GUTTER.
8. LOCATIONS OF MANHOLES & CATCH BASINS ARE TO CENTER OF STRUCTURE. LOCATIONS OF INLETS ARE AT EDGE OF PAVEMENT. GRATE ELEVATIONS ARE AT EDGE OF PAVEMENT FOR INLETS ADJACENT TO PAVEMENT. ALL OTHER GRATE ELEVATIONS ARE TO CENTER OF STRUCTURE.
9. CONTRACTOR SHALL EXERCISE EXTREME CARE SO AS TO NOT DAMAGE MAINLINE PAVEMENT STRUCTURE WHEN REMOVING EXISTING SHOULDER MATERIAL. IF DAMAGE OCCURS DURING REMOVAL OF THE EXISTING SHOULDER MATERIAL, ALL REPAIRS WILL BE DONE AT CONTRACTOR'S EXPENSE.
10. ALL PULL BOXES AND POWER POLES SHALL BE ADJUSTED AND/OR RELOCATED BY THE CORRESPONDING UTILITY, UNLESS OTHERWISE NOTED IN PLAN.
11. ALL DIMENSIONS GIVEN TO EXISTING FEATURES SHALL BE CONSIDERED AS APPROXIMATE.
12. DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE FERTILIZED, SALVAGED TOPSOIL (OR TOP SOILED), SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.
13. (BLANK)
14. THE ITEM "SAWING CONCRETE" SHALL INCLUDE THE ENTIRE PAVEMENT STRUCTURE (CONCRETE OR CONCRETE AND ASPHALTIC SURFACE).
15. THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER SHALL DETERMINE THE EXACT LOCATIONS AND DIMENSIONS. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURES NO LONGER NECESSARY.
16. ALL CONDUIT WILL BE PLACED IN TRENCHES AS OUTLINED IN SECTION 652 OF THE STANDARD SPECIFICATIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR BORING.
17. ALL CONSTRUCTION ACTIVITIES SHALL NOT INTERFERE WITH MORE THAN ONE LANE ON USH 2/53 IN ANY ONE DIRECTION OF TRAFFIC FLOW. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL REMAIN OPEN AT ALL TIMES.
18. THE EARTHWORK YARDAGE EXPANSION OF FILL IS ESTIMATED AT 25%.
19. CONTRACTOR SHALL STRIP THE EXISTING GROUND TOPSOIL TO AN APPROXIMATE DEPTH OF 6 INCHES AND STOCKPILED ON SITE AND/OR REMOVED BY AN ACCEPTABLE MANNER.
20. ELEVATIONS SHOWN ON THE PLANS ARE REFRENCED TO A DOUGLAS COUNTY BENCHMARK SYSTEM.
21. CURVE DATA IS BASED ON THE ARC DEFINITION.
22. ALL NEW CONCRETE CROSS DRAIN PIPES SHALL HAVE JOINT TIES INSTALLED ON THE LAST TWO PIPE JOINTS AND THE ENDWALL JOINT AT BOTH THE INLET AND DISCHARGE ENDS. PIPE TIES REQUIRE ERA LISTED IN THE MISCELLANEOUS QUANTITY PIPE LISTING.
23. 4-INCH HMA PAVEMENT, TYPE E-0.3 SHALL BE PLACED WITH A 2-1/4 INCH LOWER LAYER AND A 1-3/4 INCH UPPER LAYER.
24. EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.
25. 8-INCH HMA PAVEMENT, TYPE E-10 SHALL BE PLACED WITH A 2-INCH UPPER LAYER OVER (2) 3-INCH LOWER LAYERS.

NOTE: ** DENOTES UTILITY IS NOT A MEMBER OF DIGGERS HOTLINE

UTILITIES

Dahlberg Light & Power Company — Electric
James Dahlberg
9221 E. Main St.
PO BOX 300
Solon Springs, WI 54873-0300
(715) 378-2205
jimdahlberg@dahlberglightandpower.com

CenturyTel — Telephone
Alan Nickell
PO Box 369
Minong, WI 54859
(715) 378-2131
alan.nickell@centurylink.com

UW System Board Of Regents & CCI Systems Inc. — Network
Chad Kay, CCI Systems, Inc.
105 Kent Street
Iron Mountain, MI 49801
(800) 338-9299 (E), (906) 282-3790 (C)
(906) 776-2819 (O), (906) 774-6638 (F)
chad.kay@ccisystems.com

WisDOT - Electric
Travis Culver
5009 US 53 South
Eau Claire, WI 54701
715-839-3787
715-225-0360
travis.culver@dot.wi.gov

DNR CONTACT

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(715) 635-4229
amy.cronk@wisconsin.gov

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(608) 784-2729
js@vantagearchitects.com

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WisDOT - Bureau of Highway Maintenance
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Madison, WI 53707-7986
(608) 266-8665
robert.spoerl@dot.wi.gov

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

REQUIRES MIN. OF 3 WORKING DAYS
NOTICE BEFORE YOU EXCAVATE

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	GENERAL NOTES & CONTACTS	SCALE: FEET 0	SHEET NO: E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27, 28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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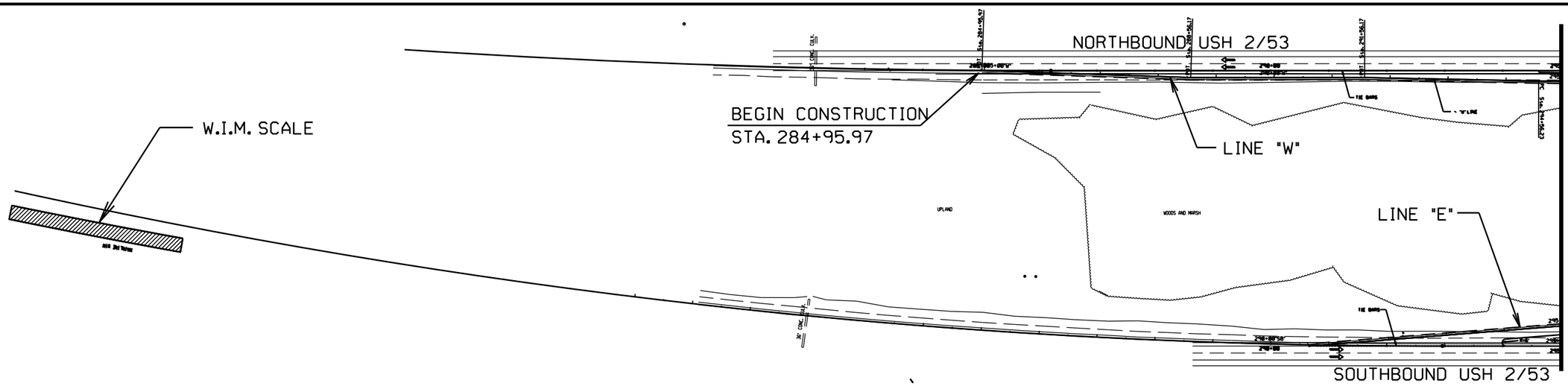
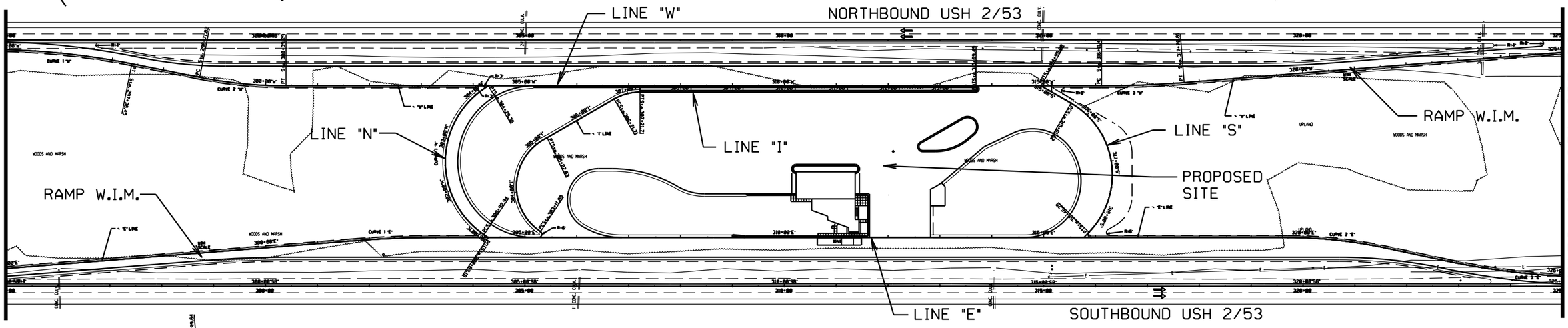
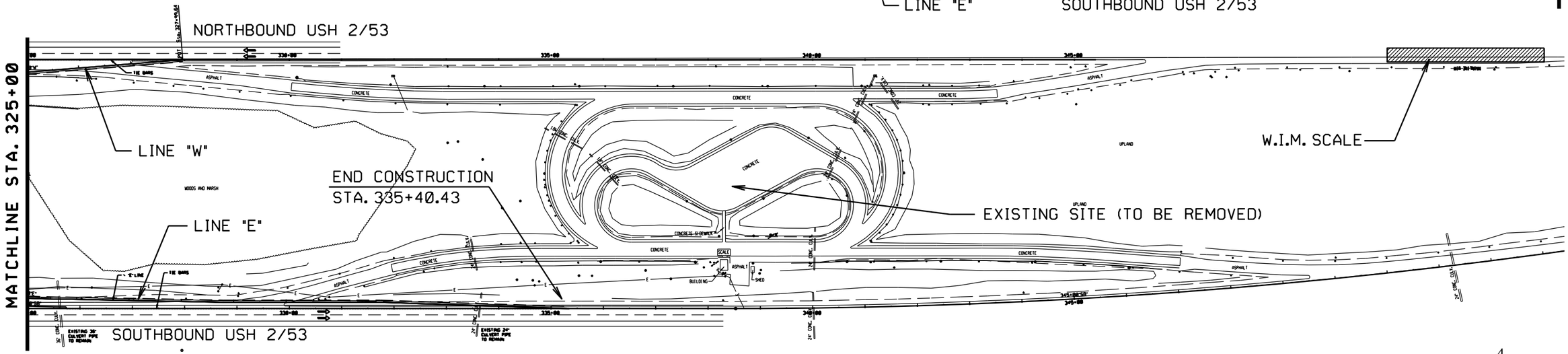
WISDOT/CADDS SHEET 42

2







PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PROJECT OVERVIEW	SCALE:	SHEET	E

4

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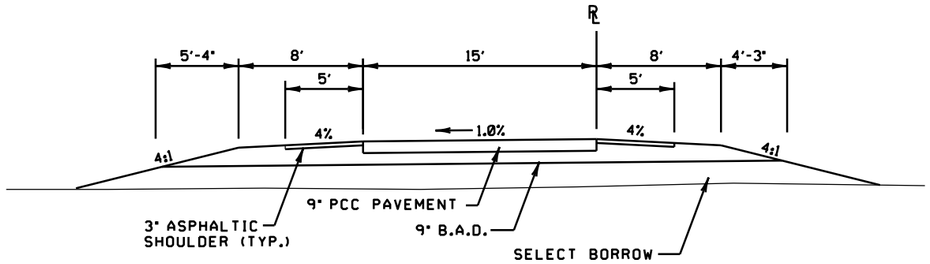
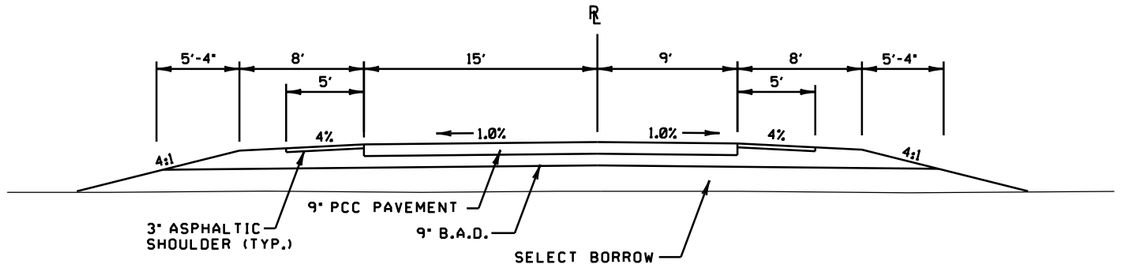
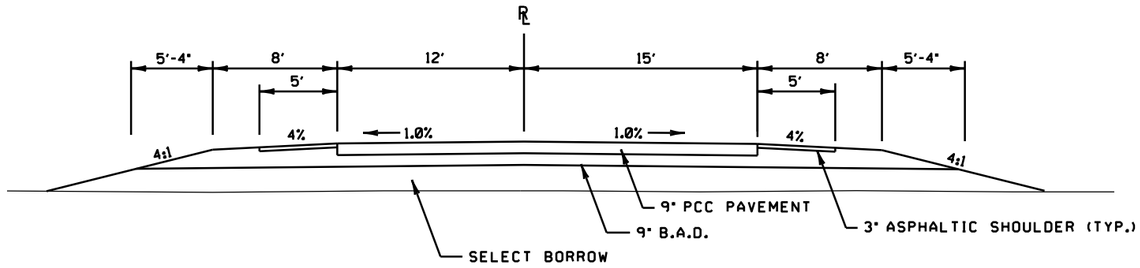


EXISTING WESTBOUND RAMP CROSS SECTION



EXISTING WESTBOUND CROSS SECTION BETWEEN OUTER LOOPS



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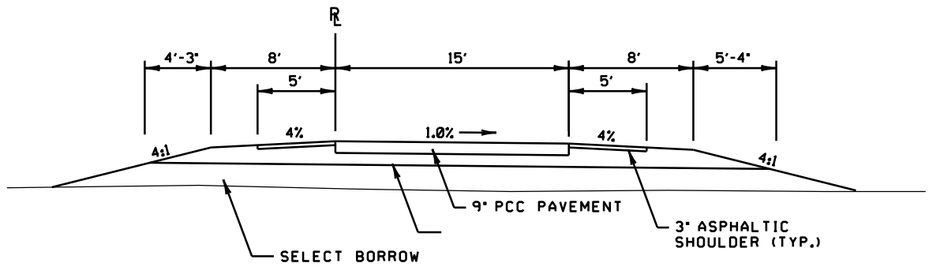
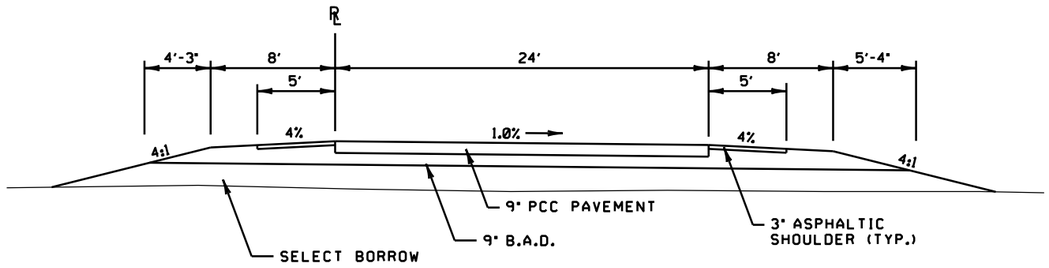


EXISTING EASTBOUND RAMP CROSS SECTION



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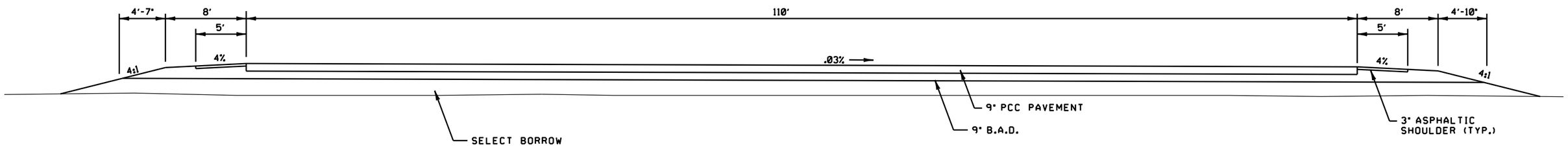

EXISTING PARKING AREA SECTION

B.A.D. - BASE AGGREGATE DENSE

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	EXISTING TYPICAL SECTIONS	SCALE:	SHEET	E

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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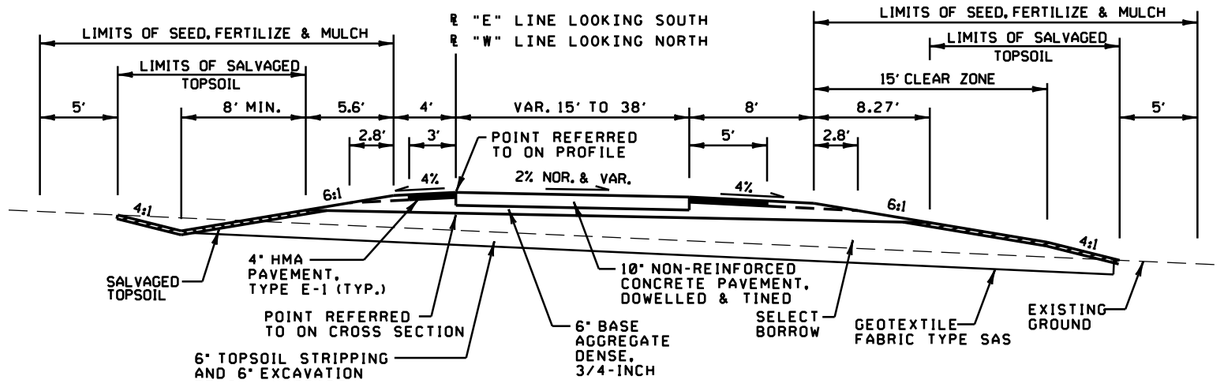
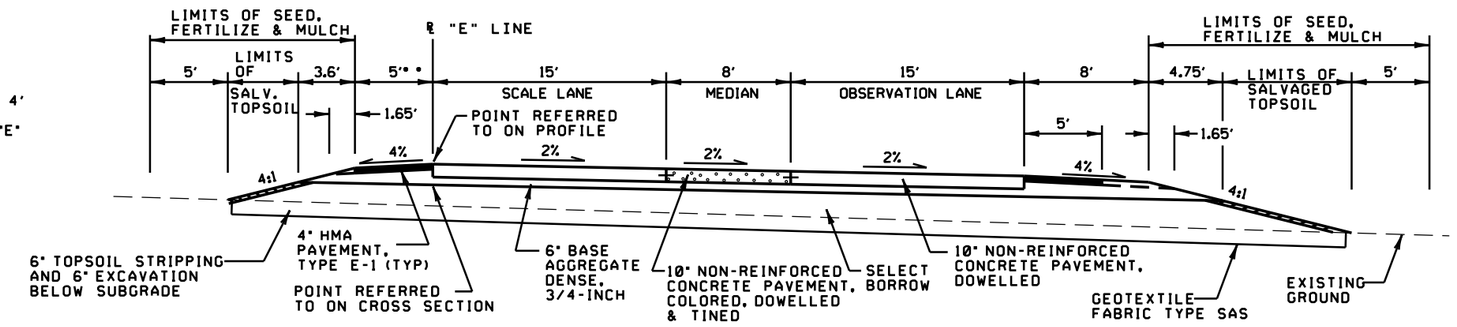
WISDOT/CADDS SHEET 42



RAMPS CROSS SECTION

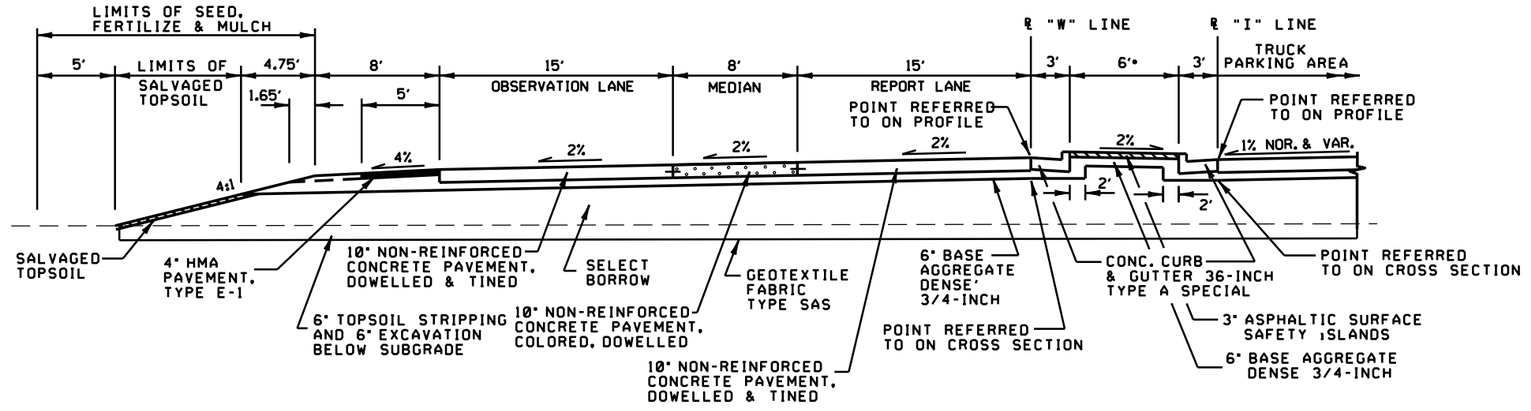
STA. 284+95.97"W" TO 300+39.29"W"
STA. 316+11.41"W" TO 327+99.64"W"
STA. 290+62.35"E" TO 303+28.03"E"
STA. 319+70.39"E" TO 335+40.43"E"

•• PAVED SHOULDER WIDTH IS 4' FROM STA. 303+28.03"E" TO 304+22"E" AND STA. 315+86"E" TO 319+70.39"E"



EASTBOUND RAMP CROSS SECTION

STA. 303+28.03 TO 319+70.39 ("E" LINE)



• LIMITS OF SALVAGED TOPSOIL, SEED, FERTILIZE & MULCH

WESTBOUND RAMP CROSS SECTION

STA. 300+39.29 TO 316+11.41 ("W" LINE)

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PROPOSED TYPICAL SECTIONS	SCALE:	SHEET	E

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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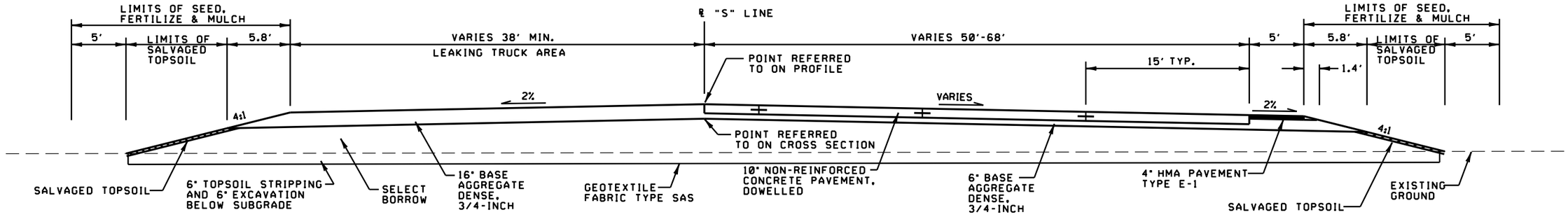
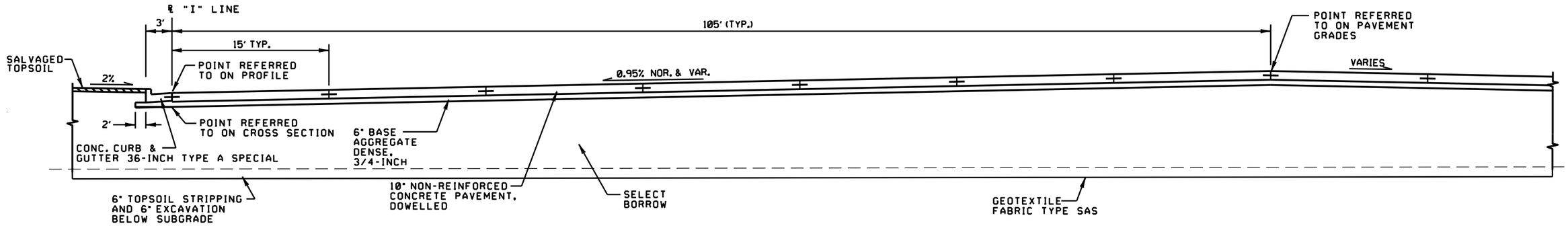


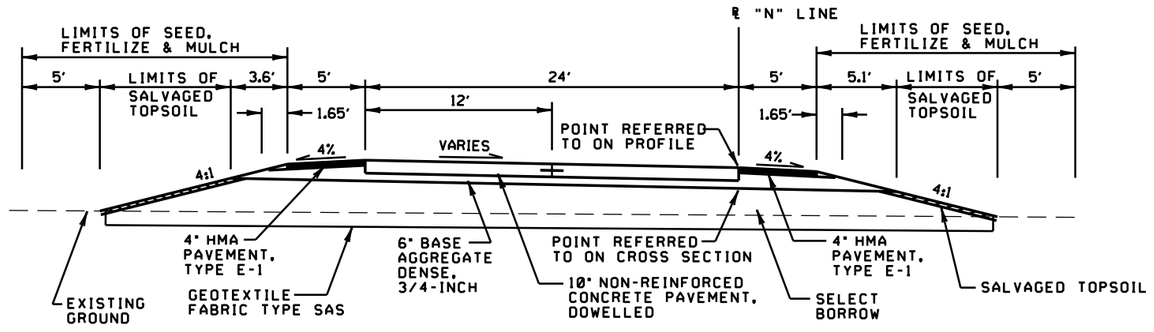
SOUTH LOOP CROSS SECTION

STA. 314+95.00 TO 318+46.28 ("S" LINE)



PARKING AREA CROSS SECTION

STA. 301+21.71 TO 313+69.49 ("I" LINE)



NORTH LOOP CROSS SECTION

STA. 300+83.18 TO 304+29.36 ("N" LINE)

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PROPOSED TYPICAL SECTIONS	SCALE:	SHEET	E

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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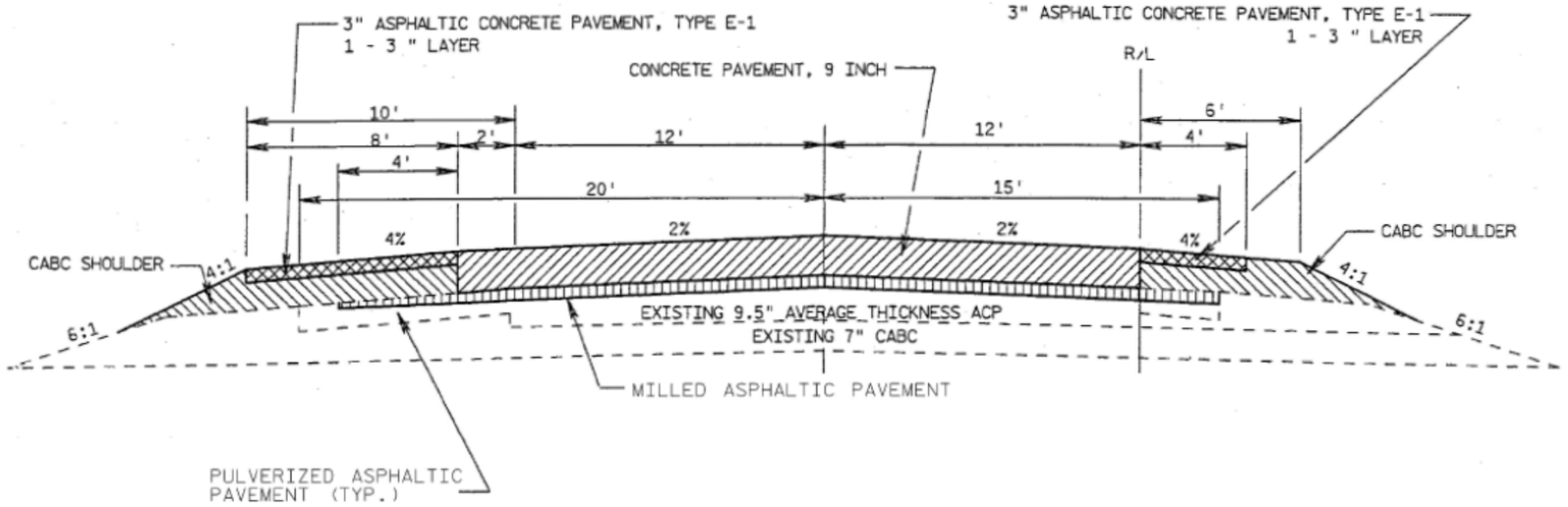
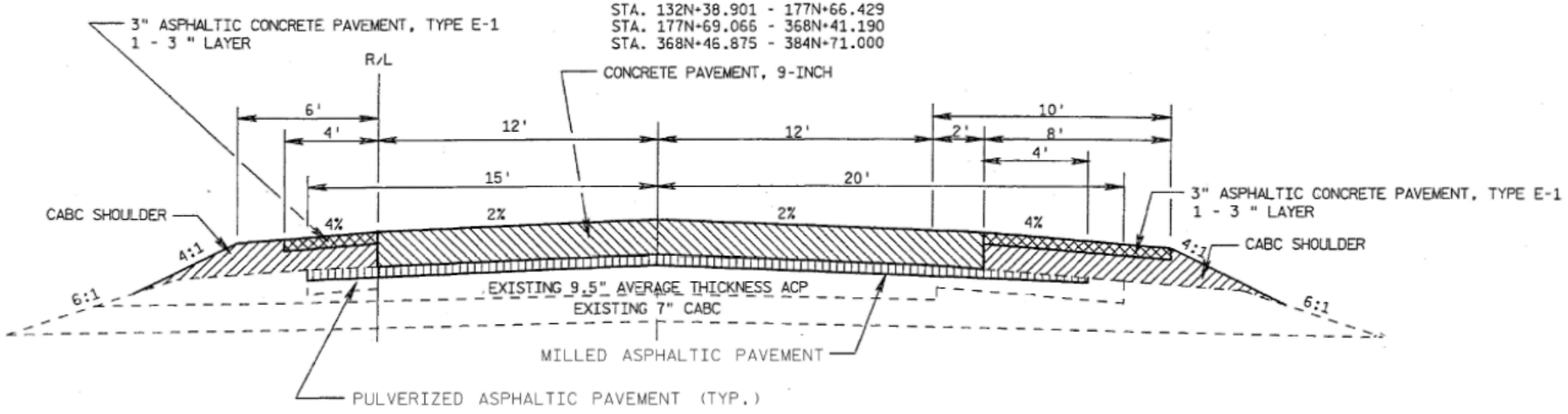


EXISTING TYPICAL SECTION (USH 2/53 WB)

STA. 62N+00.000 - 82N+51.150
STA. 82N+50.464 - 133N+30.630
STA. 132N+38.901 - 177N+66.429
STA. 177N+69.066 - 368N+41.190
STA. 368N+46.875 - 384N+71.000



EXISTING TYPICAL SECTION (USH 2/53 EB)

STA. 62S+00.000 - 66S+63.143
STA. 66S+63.672 - 198S+31.649
STA. 196S+55.851 - 368S+67.593
STA. 368S+02.771 - 385S+05.000

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PROPOSED TYPICAL SECTIONS	SCALE:	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\020303_ts.dgn PLOT DATE :14-JAN-2014 15:49 PLOT BY : dotres PLOT NAME : 020304 ts.dgn PLOT SCALE :194.705882:1.000000
WISDOT/CADDS SHEET 42

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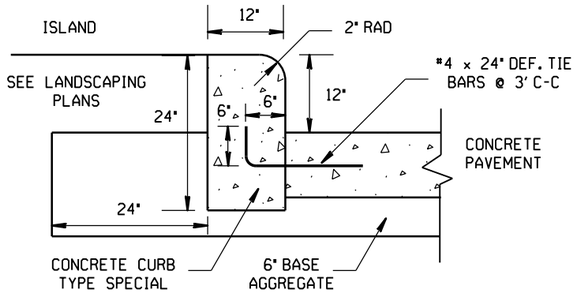
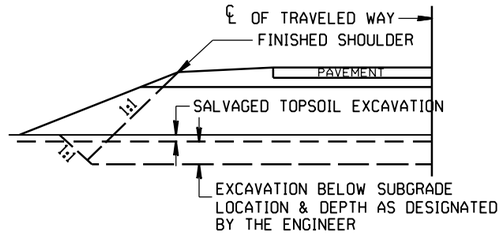
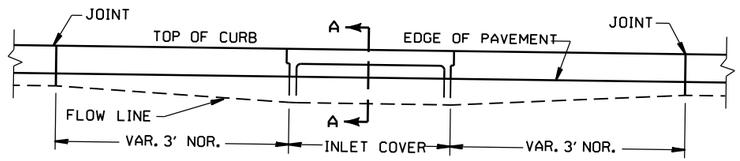


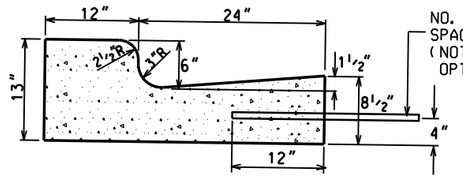
DETAIL FOR CONCRETE CURB TYPE SPECIAL



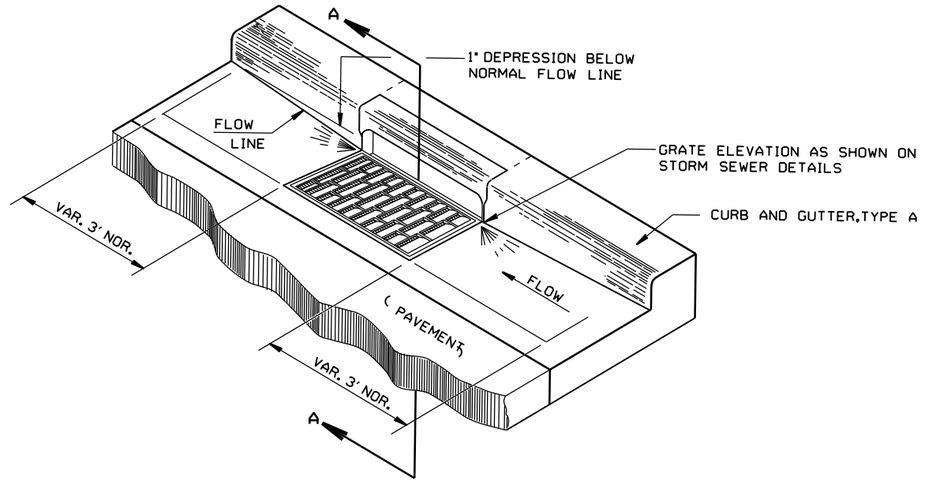
DETAIL FOR EXCAVATION BELOW SUBGRADE

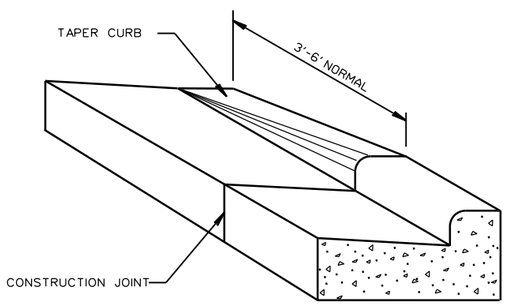


ELEVATION

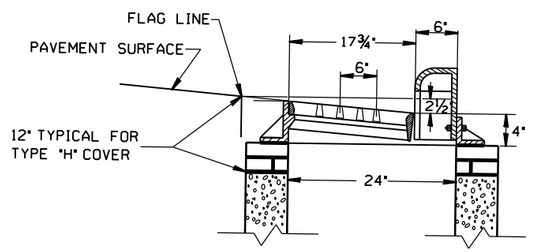


CONCRETE CURB & GUTTER,
36-INCH, TYPE A, SPECIAL





DETAIL OF CURB & GUTTER TERMINI



SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

(TYPE 3-H INLET SHOWN)

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	DETAILS	SCALE, FEET 0	SHEET NO:	E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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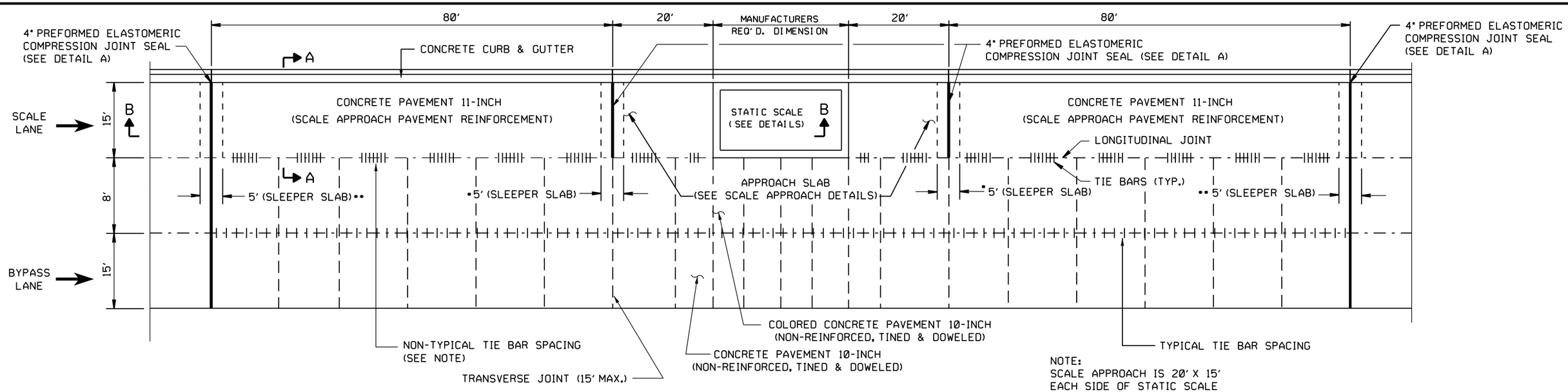
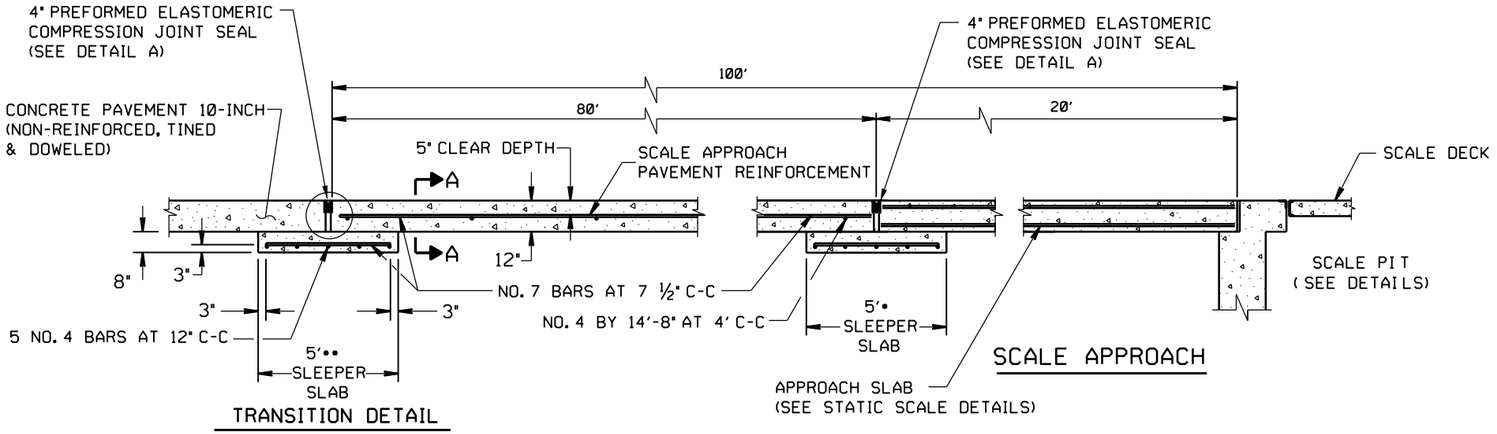
WISDOT/CADDS SHEET 42



NOTE:
SCALE APPROACH IS 20' X 15'
EACH SIDE OF STATIC SCALE

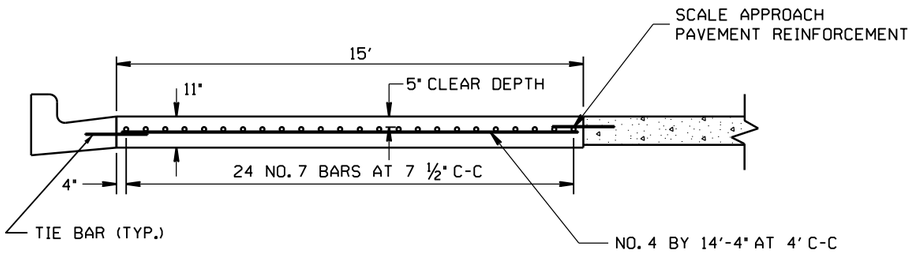
PLAN VIEW



TRANSITION DETAIL

SCALE APPROACH

SECTION B-B



SECTION A-A

CONTINUOUS REINFORCED CONCRETE APPROACH

* COSTS INCIDENTAL TO STATIC SCALE CONSTRUCTION

** COSTS INCIDENTAL TO CONCRETE PAVEMENT 11-INCH

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

JOINT FILLER

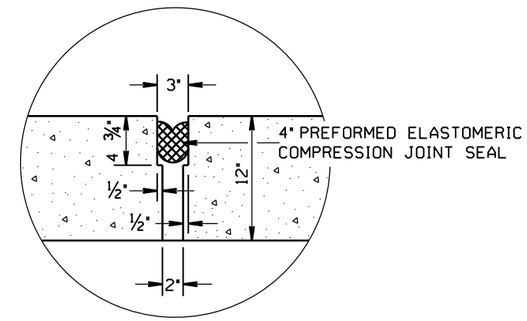
EXPANSION JOINT FILLER BETWEEN APPROACH SLAB AND ROADWAY PAVEMENT AT THE SLEEPER SLAB IS A 4-INCH PREFORMED ELASTOMERIC COMPRESSION SEAL.

STEEL REINFORCEMENT

SPLICING OF NO. 7 BARS IN THE APPROACH SLAB IS PERMITTED. SPLICES SHALL BE STAGGERED, WITH A MAXIMUM OF ONE SPLICE PER BAR. LAPS SHALL CONFORM TO THE STANDARD SPECIFICATIONS. REINFORCEMENT BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.

TIE BARS

TIE BARS BETWEEN THE CRCP AND THE NON-REINFORCED DOWELED CONCRETE PAVEMENT LONGITUDINAL JOINT SHOULD ONLY BE PLACED WITHIN THE MIDDLE THIRD OF THE SLAB (15 FOOT MAX. LENGTH) BETWEEN THE TRANSVERSE JOINTS. THE SAME NUMBER OF TIE BARS THAT WOULD TYPICALLY BE USED ALONG THE LONGITUDINAL JOINTS PER S.D.D. SHOULD BE USED.

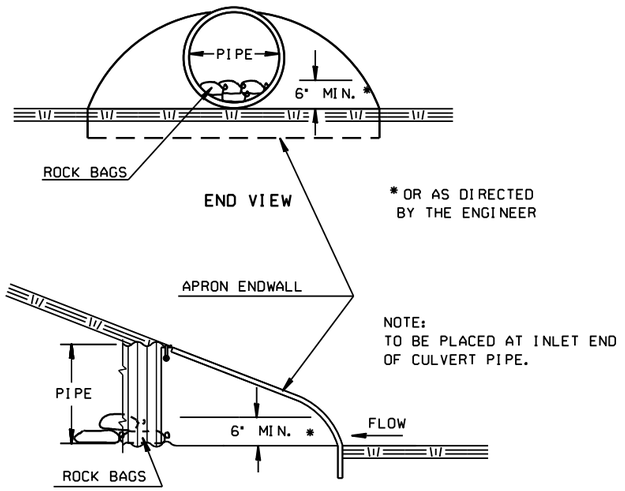


DETAIL A

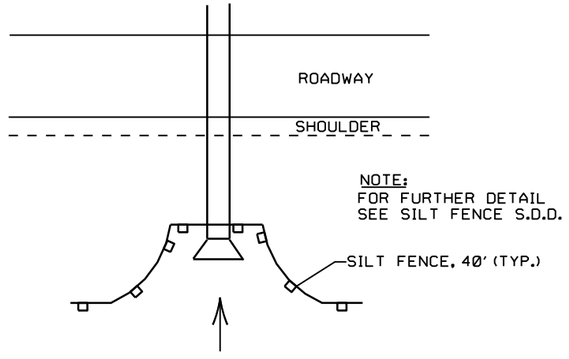
PAVEMENT SECTION AT STATIC SCALE LOCATION

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT DETAILS FOR STATIC SCALE	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\021003_cd.dgn PLOT DATE : 27-MAR-2014 16:24 PLOT BY : dotres PLOT NAME : 021003 cd.dgn PLOT SCALE :194.705882:1.000000
WISDOT/CADDS SHEET 42

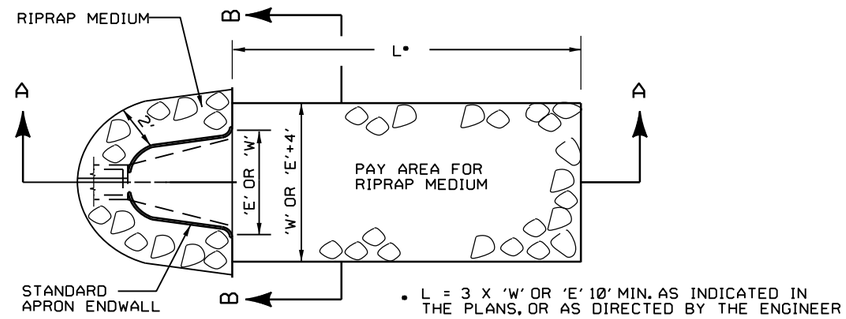


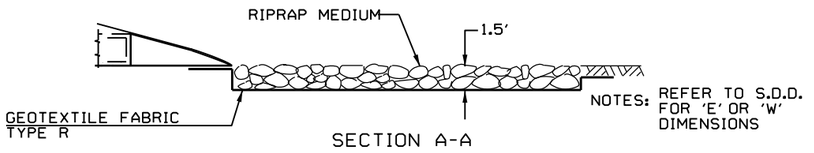
CULVERT PIPE CHECKS



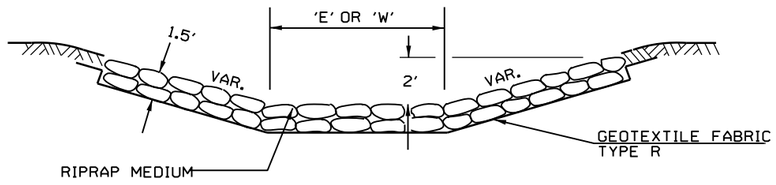
SILT FENCE AT PIPE INLET

SEE EROSION CONTROL PLAN FOR LOCATIONS





SECTION A-A



SECTION B-B

RIPRAP TREATMENT AT PIPE ENDWALL

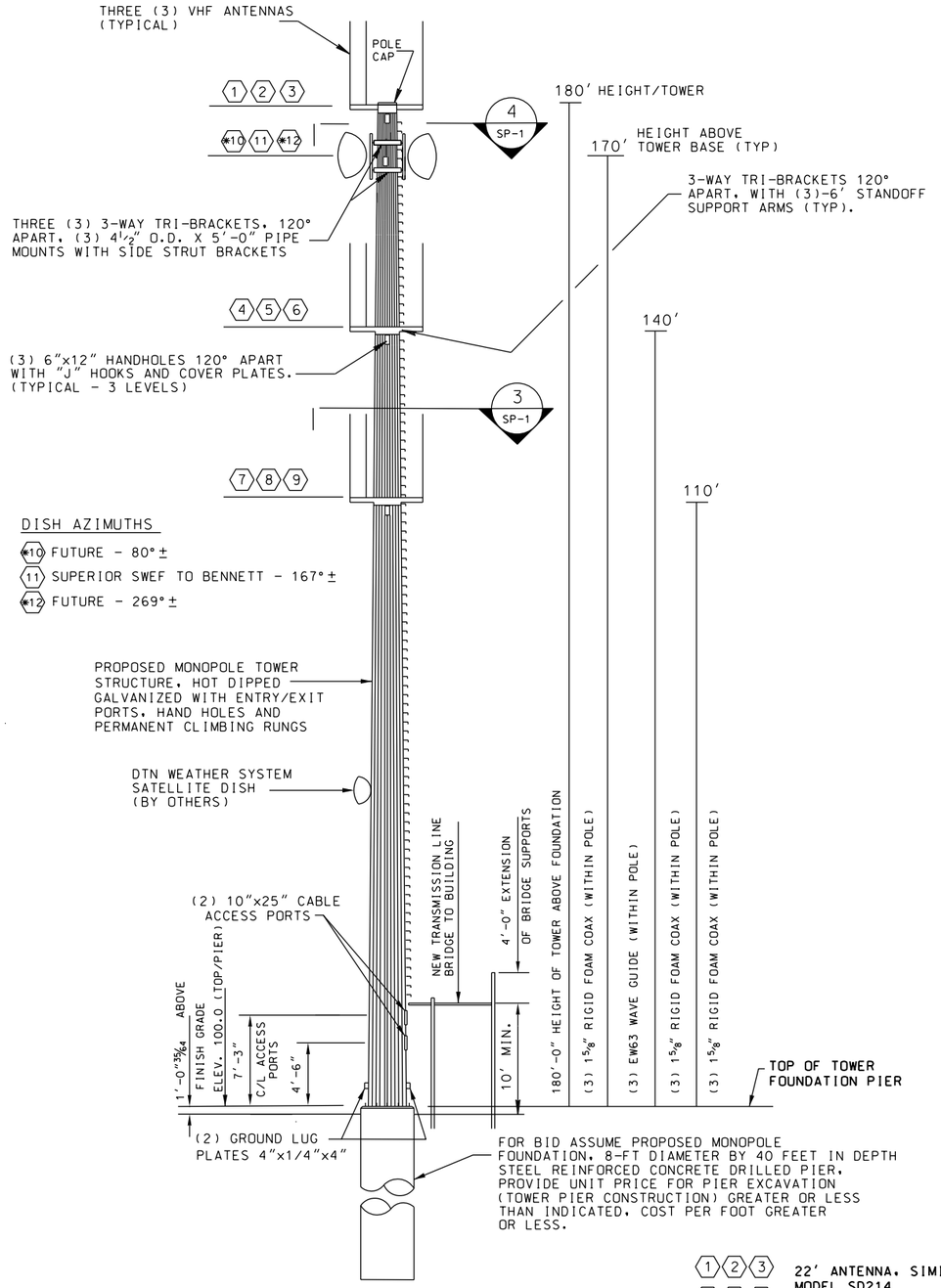
SEE EROSION CONTROL PLAN FOR LOCATIONS

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CONSTRUCTION DETAIL	SCALE:	SHEET	E

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\021004_cd.dgn PLOT DATE : 27-MAR-2014 16:32 PLOT BY : dotres PLOT NAME : 021004 cd.dgn PLOT SCALE : 194.705882:1.000000

WISDOT/CADDS SHEET 42



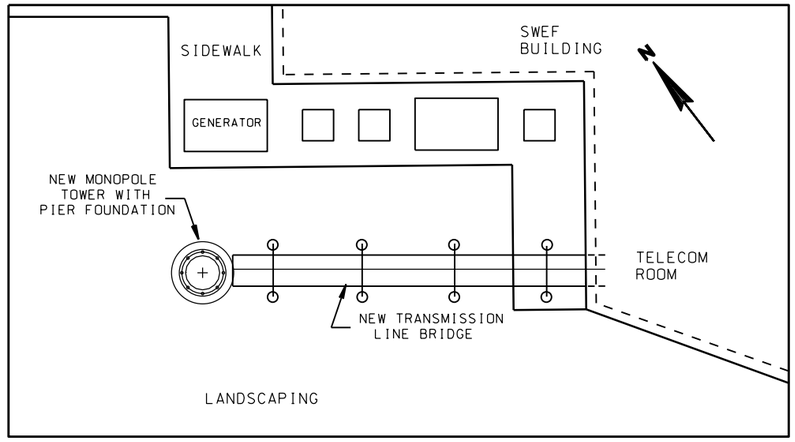
2 SP-1 MONOPOLE/TOWER DESIGN LOAD INFORMATION

00 INDICATES ANTENNA OR DISH AND TRANSMISSION LINE TO BE INSTALLED AS PART OF THIS CONTRACT

#00 INDICATES ANTENNA OR DISH AND TRANSMISSION LINE FOR FUTURE INSTALLATION

1 2 3 / 4 5 6 / 7 8 9 — 22' ANTENNA, SIMILAR TO MODEL SD214

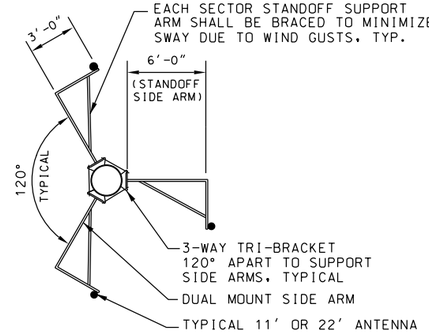
#10 11 #12 — 3-WAY TRI-BRACKET FOR 8-FT DIA. DISH WITH RADOME AND NO ICE DEFLECTOR



1 SP-1 MONOPOLE/TOWER SITE PLAN

SCALE 1/4" = 1'-0"

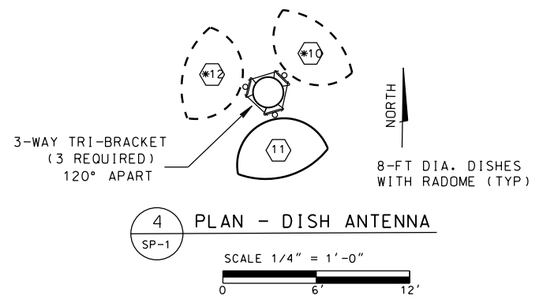
0 4' 8'



3 SP-1 LAYOUT-SIDE ARM ANTENNA SUPPORT (THREE LOCATIONS)

SCALE 1/4" = 1'-0"

0 6' 12'



4 SP-1 PLAN - DISH ANTENNA

SCALE 1/4" = 1'-0"

0 6' 12'

NOTES FOR TOWER:

1. PROVIDE AND INSTALL A 6-FOOT SIDE ARM (STANDOFF), NINE (9) REQUIRED. EACH SIDE ARM FOR SUPPORT OF ONE (1) PD-340 DIPOLE ANTENNA, 3-WAY TRI-BRACKET 120° APART TO SUPPORT SIDE ARMS, SEE DETAIL 3 ON THIS SHEET.
2. PROVIDE AND INSTALL A 4.5" O.D. x 5'-0" PIPE MOUNT FOR EACH DISH ANTENNA INDICATED (PROPOSED AND FUTURE), THREE (3) REQUIRED. PROVIDE THREE (3) 3-WAY TRI-BRACKETS 120° APART TO SUPPORT PIPE MOUNTS. INSTALL PIPE MOUNTS BOTH FOR DISH ANTENNA INSTALLED AS PART OF THIS CONTRACT AND FUTURE ANTENNAS INSTALLED OUTSIDE OF THIS CONTRACT.

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Drawing Title
TOWER LOAD INFORMATION AND SITE PLAN DETAILS

Plans prepared by WisDOT

Sheet No.
SP-1

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	COMMUNICATIONS TOWER DETAILS	SCALE:	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\021150_ct.dgn PLOT DATE :16-DEC-2013 11:38 PLOT BY : dotres PLOT NAME : 021151 ct.dgn PLOT SCALE :116.823529:1.000000
WISDOT/CADDS SHEET 42
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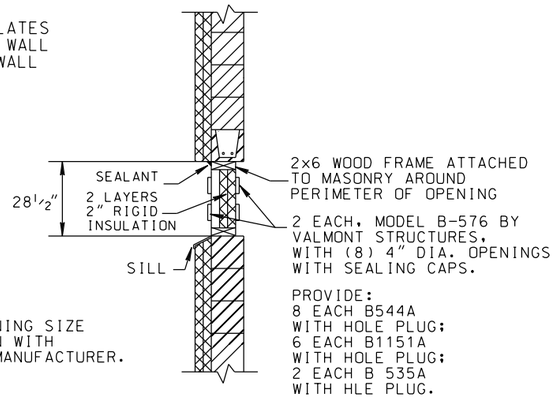
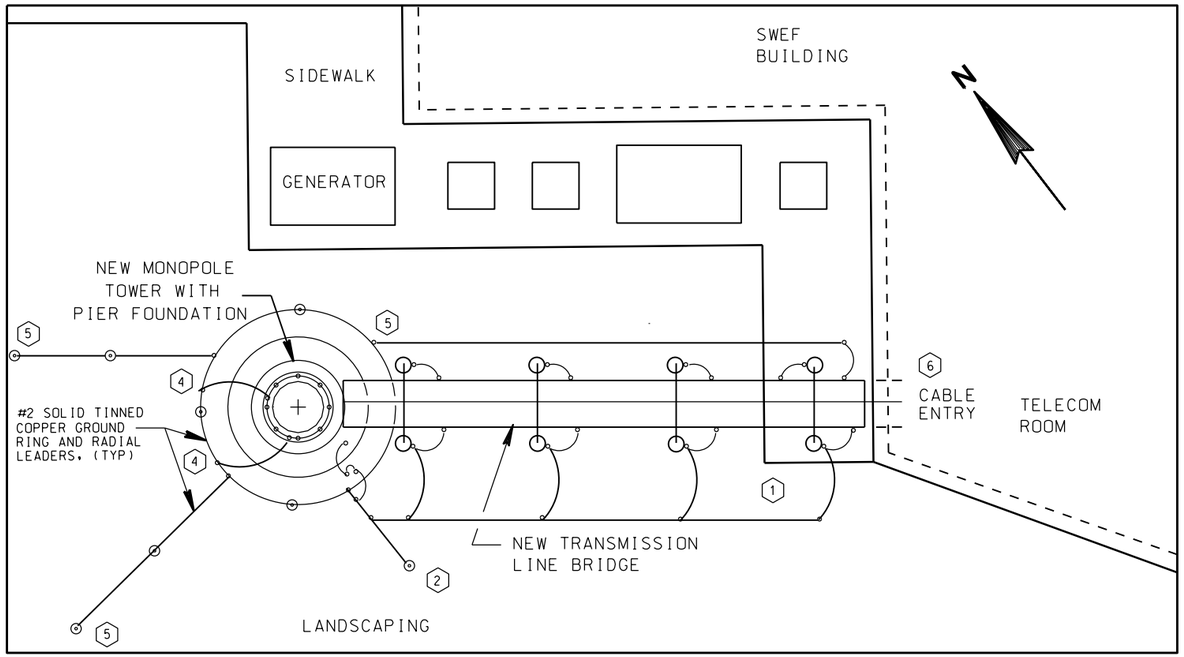
NOTE:
TWO MODEL B-576 PORT PLATES REQUIRED, ONE EXTERIOR WALL FACE AND ONE INTERIOR WALL FACE, WITH 4" OF RIGID INSULATION BETWEEN.



CONFIRM OPENING SIZE AND LOCATION WITH MECHANICAL MANUFACTURER.

3 / E-1 **WAVEGUIDE ENTRY DETAIL**

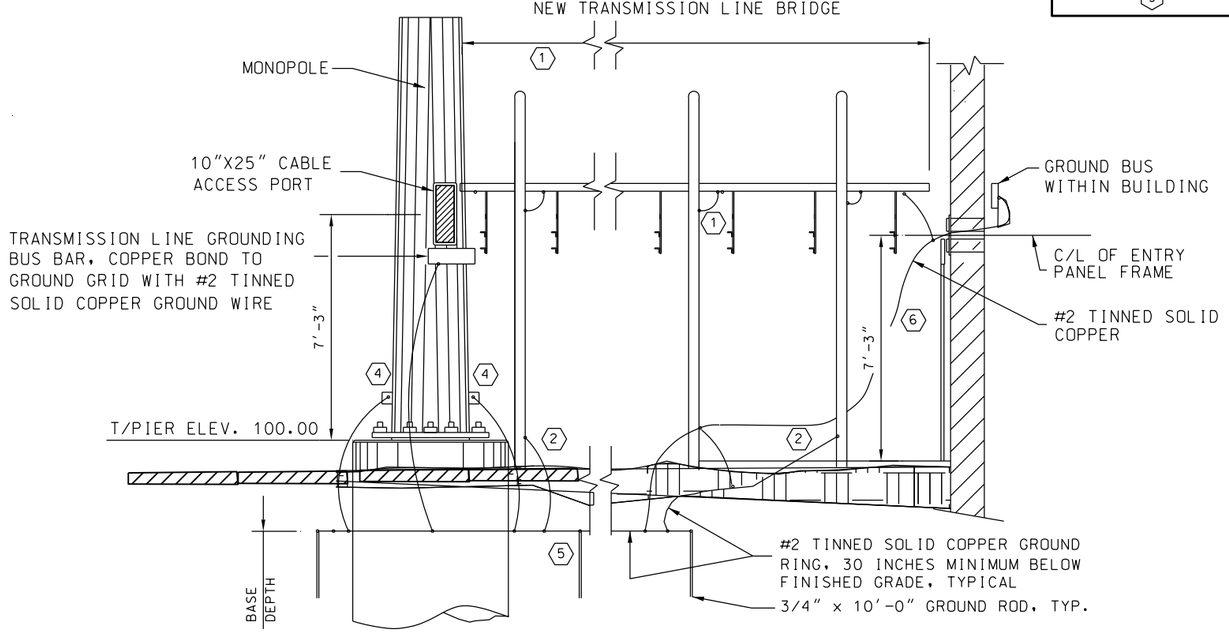
NOT TO SCALE



1 / E-1 **SITE GROUNDING PLAN**

SCALE 1/4" = 1'-0"

0 4' 8'



2 / E-1 **TOWER AND CABLE BRIDGE SUPPORT GROUND DETAIL**

SCALE 1/2" = 1'-0"

0 2' 4'

LEGEND

- ⊙ GROUND ROD LOCATION
- • GROUNDING BOND CONNECTION
- SWEF BUILDING WALL

ELECTRICAL NOTES:

1. OUTSIDE CABLE TRAY BY TOWER CONTRACTOR. ELECTRICAL CONTRACTOR TO BOND ALL JOINTS IN CABLE TRAY WITH #6 STRANDED COPPER GREEN INSULATED, EXOTHERMICALLY WELD CONNECTIONS TO CABLE TRAY ON BOTH SIDES OF JOINT AND TO SUPPORT POSTS. BOND TO EXTERIOR GROUND RING, REFER TO DETAIL 1/E-1. INCLUDE EXISTING CABLE TRAY JOINTS.
2. EXOTHERMICALLY BOND GROUND WIRE TO TRANSMISSION LINE BRIDGE POSTS AND EXISTING CABLE TRAY SUPPORTS POSTS APPROXIMATELY 12 INCHES ABOVE FINISHED GRADE.
3. MANUFACTURER'S NAMES AND CATALOG NUMBERS ARE USED FOR QUALITY AND PERFORMANCE ONLY.
   EQUIPMENT MANUFACTURED BY OTHERS WILL BE EQUALLY ACCEPTABLE PROVIDED THEY MEET OR EXCEED THE SPECIFICATIONS.
4. EXOTHERMICALLY BOND #2 SOLID TINNED COPPER GROUND WIRE TO TOWER GROUND PLATES AS SHOWN IN DETAIL 2/E-1.
5. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL GROUND RODS, GROUND RING CONDUCTORS MAKE ALL BELOW AND ABOVE GROUND CONNECTIONS.
6. EXOTHERMICALLY BOND EXISTING GROUND BUS WITHIN BUILDING TO NEW GROUND GRID.

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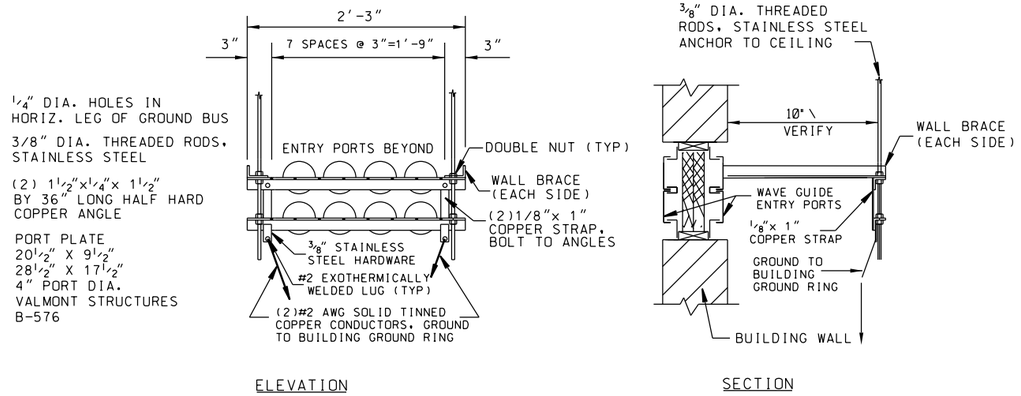
Drawing Title
ELECTRICAL PLAN & DETAILS

Plans prepared by WisDOT

Sheet No.
E-1

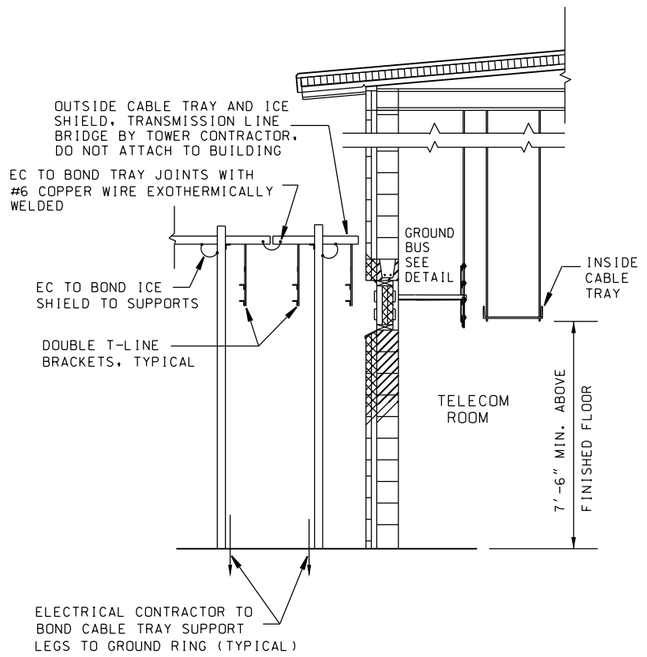
PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	COMMUNICATIONS TOWER DETAILS	SCALE:	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\021150_ct.dgn PLOT DATE :16-DEC-2013 11:40 PLOT BY : dotres PLOT NAME : 021152 ct.dgn PLOT SCALE :116.823529:1.000000
WISDOT/CADDS SHEET 42
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



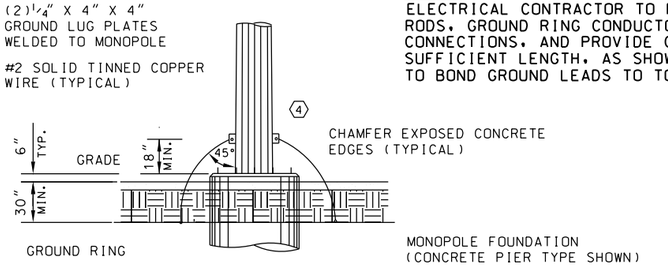
1 E-2 **MICROWAVE CABLE ENTRANCE GROUND BUS DETAIL**

NOT TO SCALE



2 E-2 **CABLE ENTRANCE GROUND DETAIL**

0' 2' 5'



NOTE:
ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL GROUND RODS, GROUND RING CONDUCTORS, MAKE ALL UNDERGROUND CONNECTIONS, AND PROVIDE GROUND WIRE TO ABOVE GRADE, OF SUFFICIENT LENGTH, AS SHOWN. ELECTRICAL CONTRACTOR TO BOND GROUND LEADS TO TOWER BASE.

3 E-2 **MONOPOLE TOWER GROUND DETAIL**

NOT TO SCALE

SUPERIOR SWEF #72
Communications Tower
Douglas County
State of Wisconsin
Dept. of Transportation

Issued / Revised
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Drawing Title
ELECTRICAL DETAILS

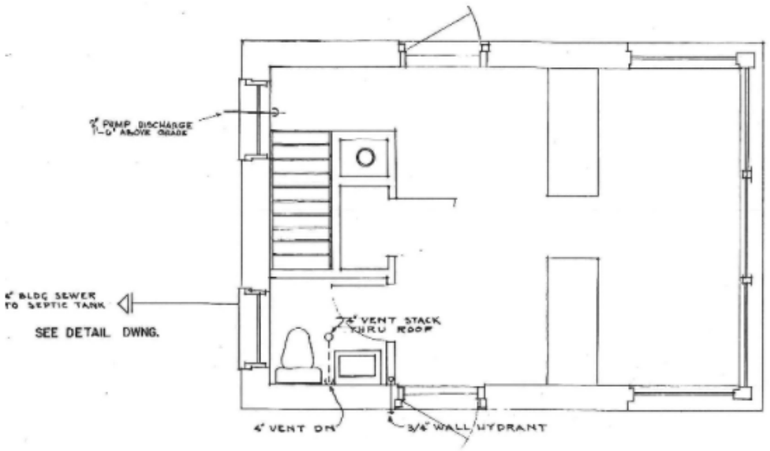
Plans prepared by WisDOT

Sheet No.
E-2

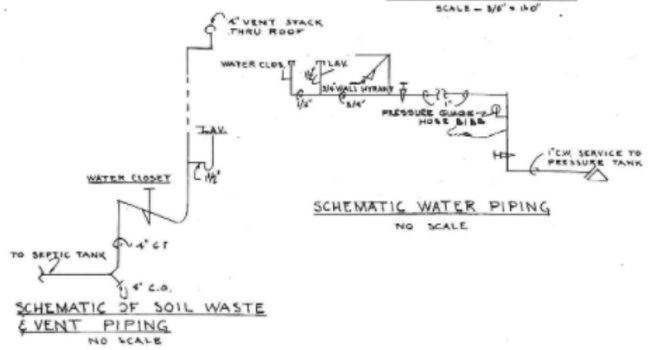
PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	COMMUNICATIONS TOWER DETAILS	SCALE:	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\021150_ct.dgn PLOT DATE : 16-DEC-2013 11:41 PLOT BY : dotres PLOT NAME : 021153 ct.dgn PLOT SCALE : 116.823529:1.000000
WISDOT/CADDS SHEET 42

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

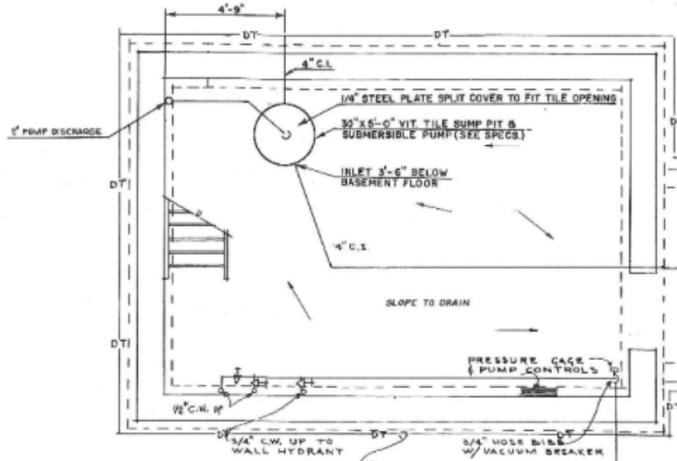


FIRST FLOOR PLAN
SCALE – 3/8" = 1'-0"

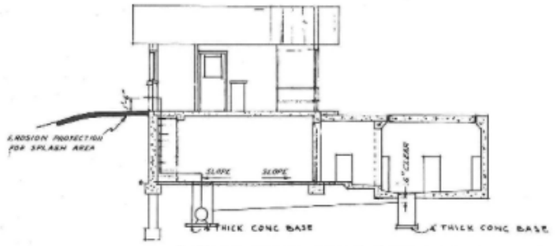


SCHEMATIC OF SOIL WASTE & VENT PIPING
NO SCALE

SCHEMATIC WATER PIPING
NO SCALE



BASEMENT PLAN
SCALE – 3/8" = 1'-0"



SECTION THRU SCALE HOUSE & SCALE PIT
SCALE – 1/8" = 1'-0"

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
1194-1-75	214	16
PROJECT DESIGNATION: T08-5 (48)		

SCALEHOUSE PLUMBING

EXISTING PLANS

FOR INFORMATIONAL PURPOSES ONLY

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN-EXISTING BUILDING	SCALE, FEET 0	SHEET NO:	E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40, 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\021190_pd.dgn PLOT DATE : 01-APR-2014 16:12 PLOT BY : dotres PLOT NAME : 021190 pd.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1.000000

WISDOT/CADDS SHEET 42

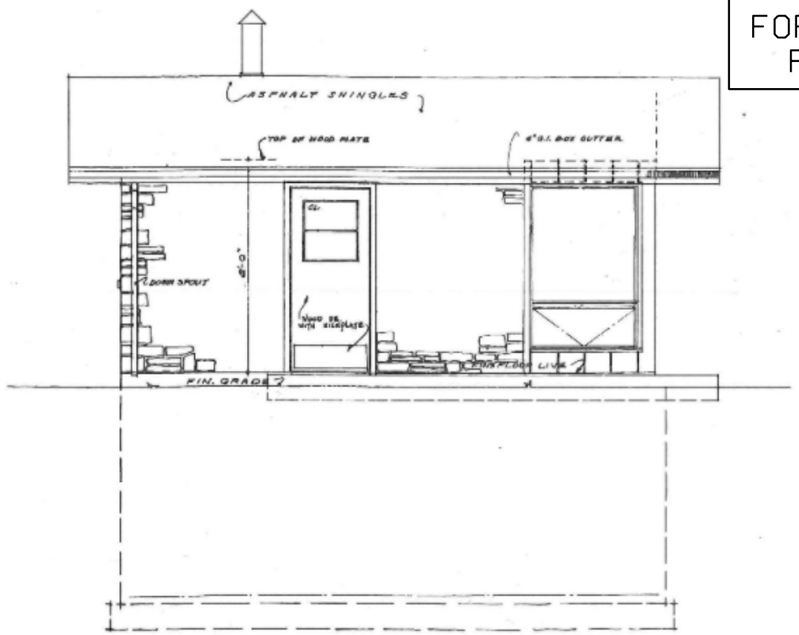
EXISTING PLANS

FOR INFORMATIONAL PURPOSES ONLY

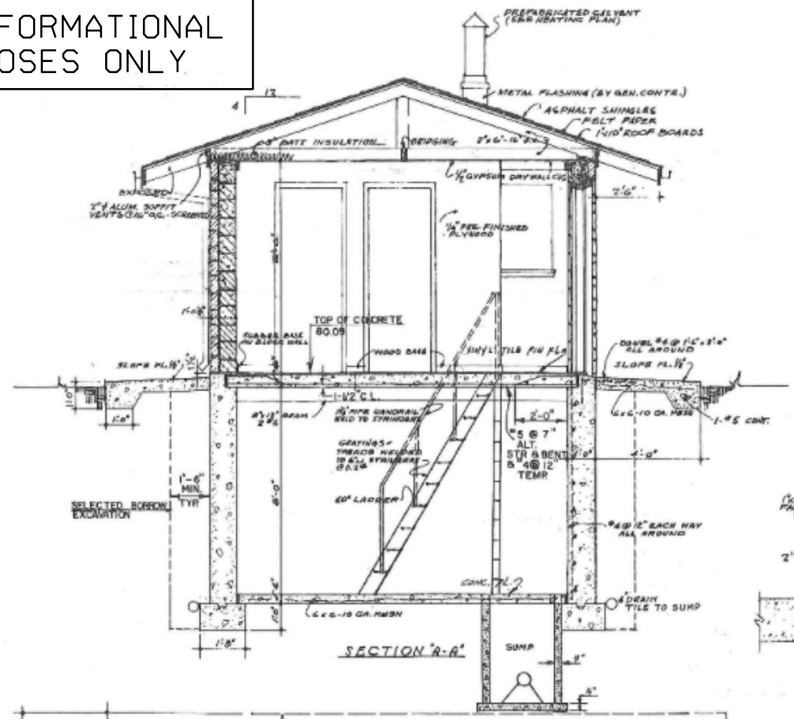
PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
1194-1-75	215	16
PROJECT DESIGNATION: T08-5 (48)		

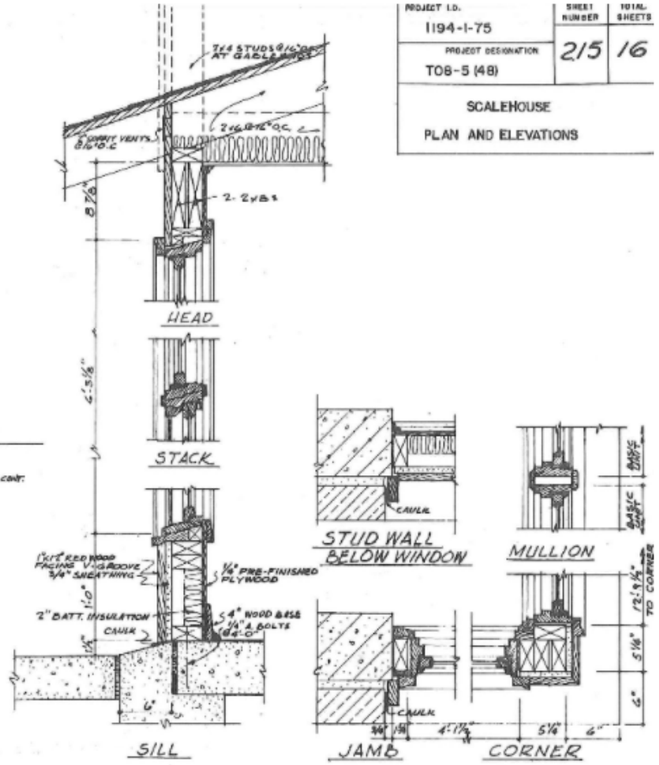
SCALEHOUSE

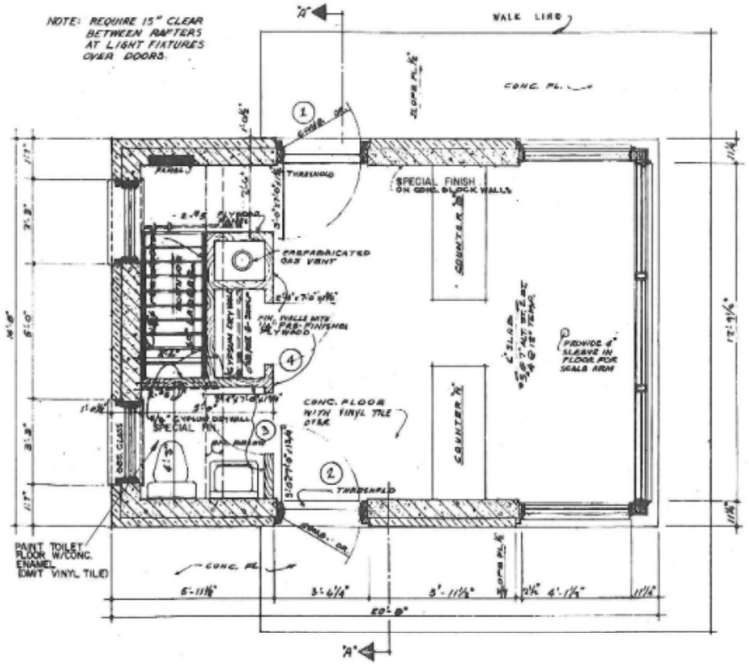
PLAN AND ELEVATIONS



SIDE ELEVATION

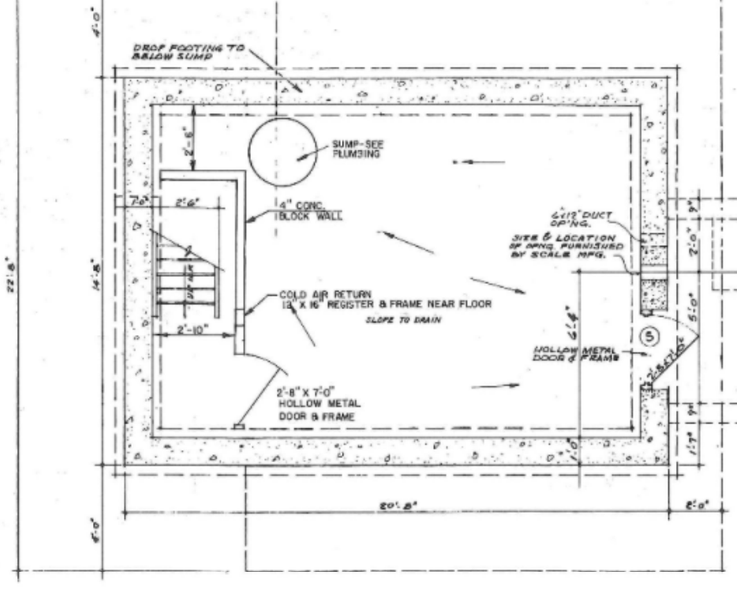




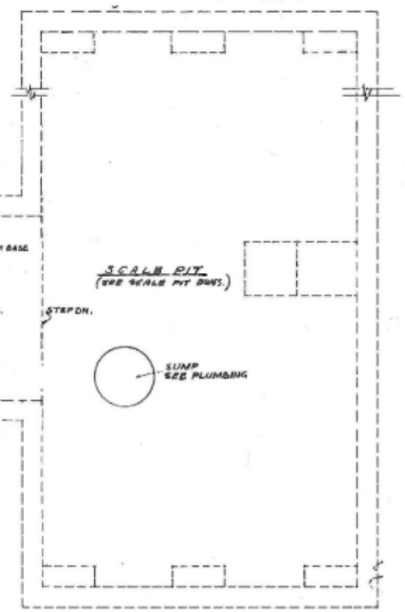


FIRST FLOOR PLAN

SCALE 3/16" = 1'-0"



BASEMENT PLAN



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN-EXISTING BUILDING	SCALE, FEET 0	SHEET NO: E

16

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40, 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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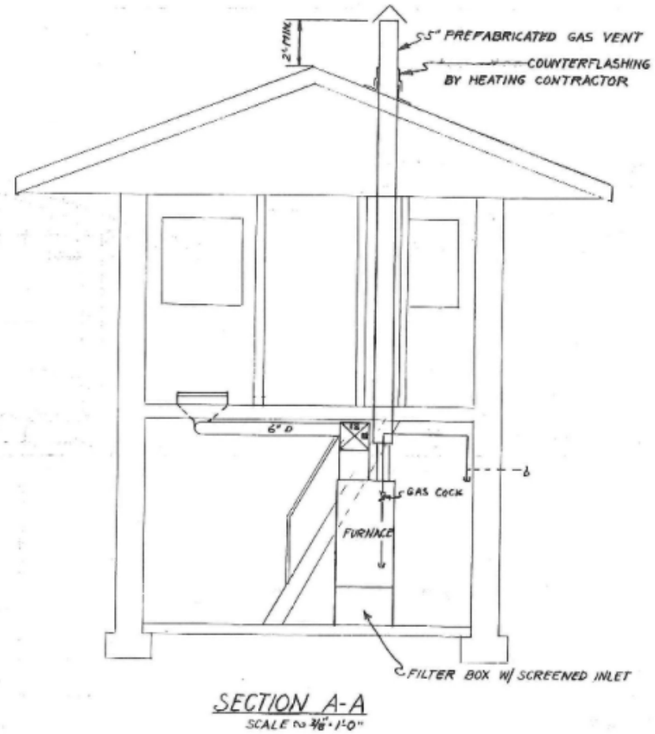
WISDOT/CADDS SHEET 42

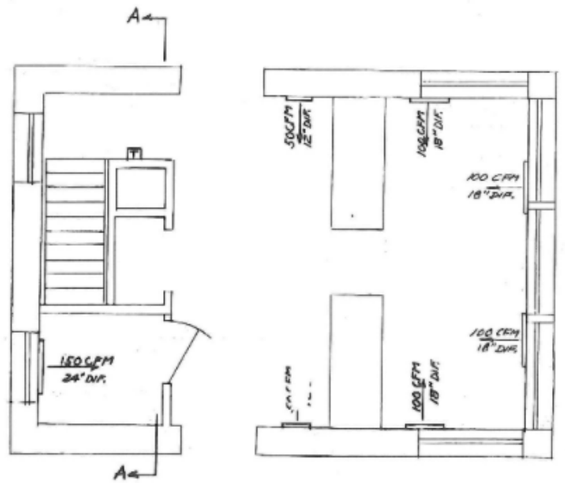
PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
1194-1-75	217	16
PROJECT DESIGNATION: T08-5 (48)		
SCALEHOUSE HEATING		

EXISTING PLANS

FOR INFORMATIONAL PURPOSES ONLY

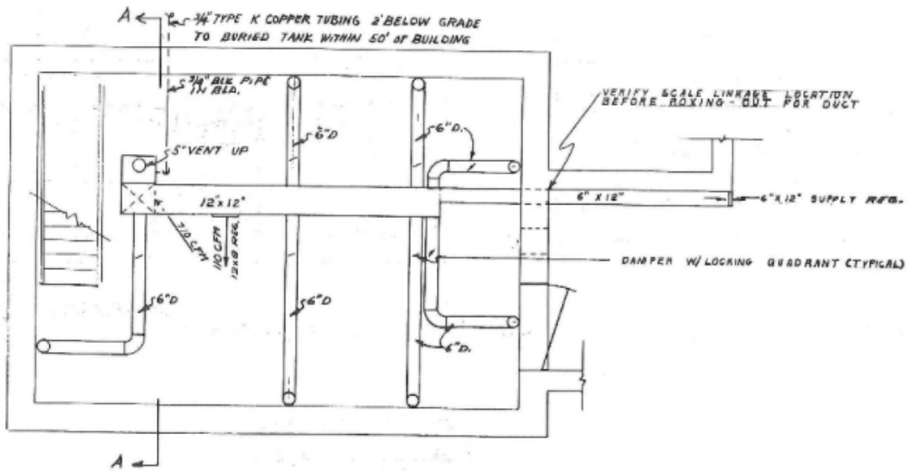


SECTION A-A
SCALE ~ 3/8" = 1'-0"



1ST FLR. PLAN
SCALE ~ 3/16" = 1'-0"

LEGEND
DIF. - BASEBOARD DIFFUSER
REG. - REGISTER w/ DAMPERS
T - THERMOSTAT



BASEMT PLAN
SCALE ~ 3/16" = 1'-0"

BUREAU of ENGINEERING
1-19-63 BY T.O.C.
7-18-68 ADDITION OF HEATING TO SCALE PIT M.S.H.

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN-EXISTING BUILDING	SCALE, FEET 0	SHEET NO: E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40, 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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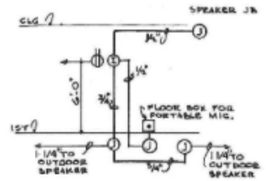
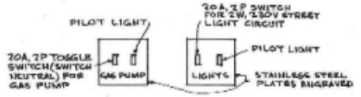
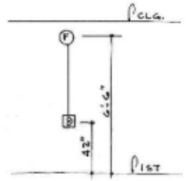
WISDOT/CADDS SHEET 42



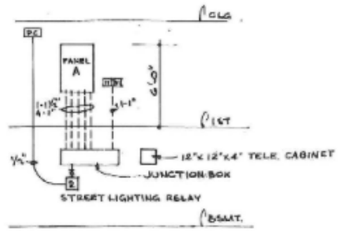
DETAIL "A"
SOUND SYSTEM RISER



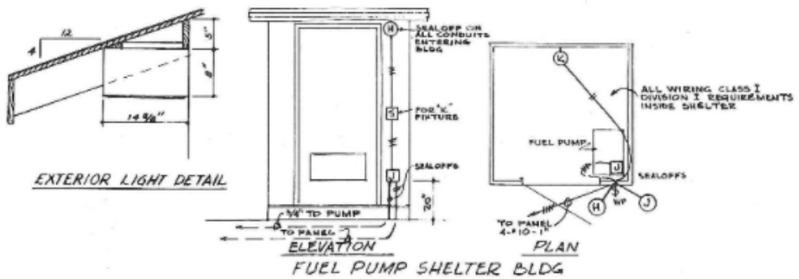
DETAIL "B"



DETAIL "C"



DETAIL D



FUEL PUMP SHELTER BLDG

EXISTING PLANS

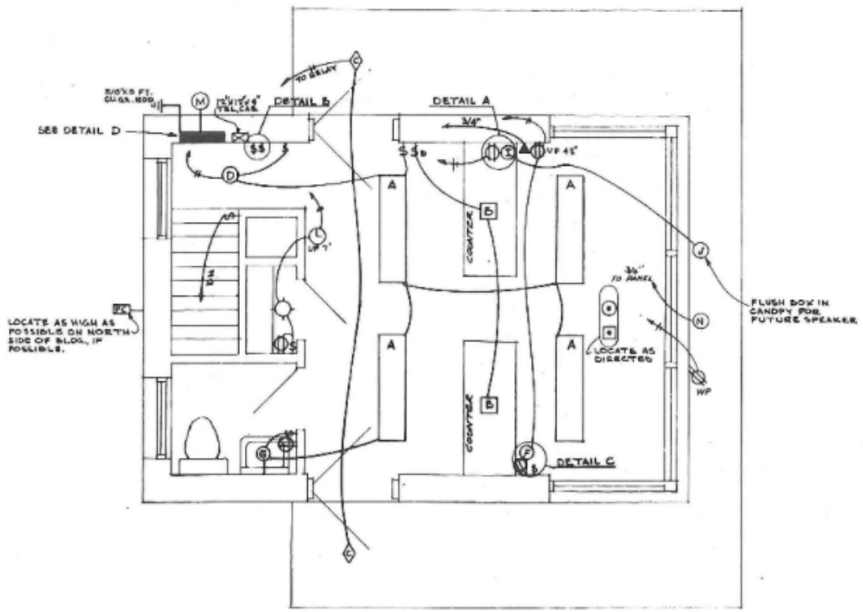
FOR INFORMATIONAL PURPOSES ONLY

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
1194-1-75	2.16	16
PROJECT DESIGNATION: T08-5 (46)		

SCALEHOUSE
ELECTRICAL

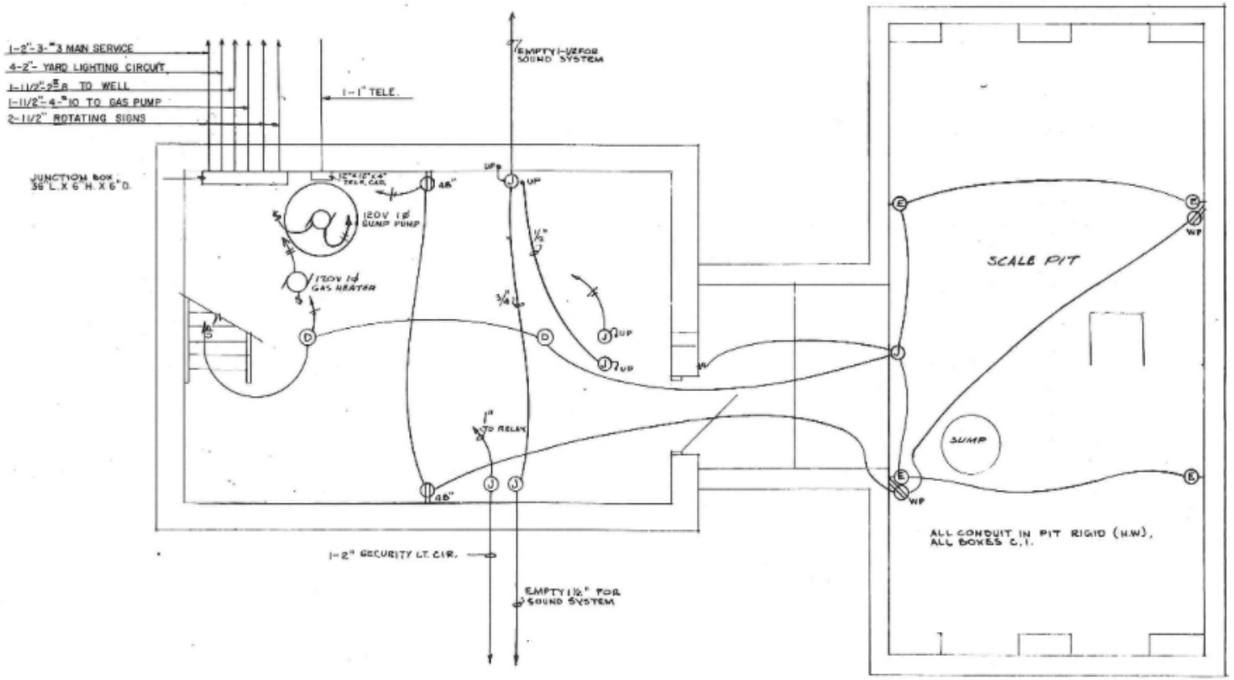
SYMBOLS

- CEILING OUTLET
- BRACKET OUTLET
- RECESSED FIXTURE
- TROFFER FLUORESCENT
- (J) JUNCTION BOX
- [J] APPLETON FDD-2-100 JUNCTION BOX + 1" RB100-50 REDUCER
- DUPLEX RECEPTACLE - BRYANT #5242 - "WP" WEATHERPROOF
- (F) FAN HANGER - BRYANT #5251
- FLOOR BOX, 120V, NATIONAL #800-C1/875 R2/856
- CLOCK HANGER - BRYANT #5252
- SURFACE FIXTURE
- TOGGLE SWITCH - BRYANT #4901, 4902, ETC., "WP" WEATHERPROOF
- [S] APPLETON #FSC-1-50 BOX W/ #FSK-W/# 15 AC.1
- (S) SOUND SYSTEM OUTLET
- FLOOR BOX FOR MIC - NATIONAL #800-C1/856
- PUBLIC TELEPHONE
- 1/4 MOTOR OUTLET
- [R] STREET LIGHTING RELAY, 30A, 2P, ENCLOSED, ASCO #921 PC SOD 8903, V
- [PC] PHOTO CELL - GENERAL ELECTRIC SERIES NO. C 402 G
- (M) UTILITY METER
- 4" PORCELAIN KEYLESS LAMPHOLDER



FIRST FLOOR PLAN

SCALE — 1/4" = 1'-0"



BASEMENT PLAN

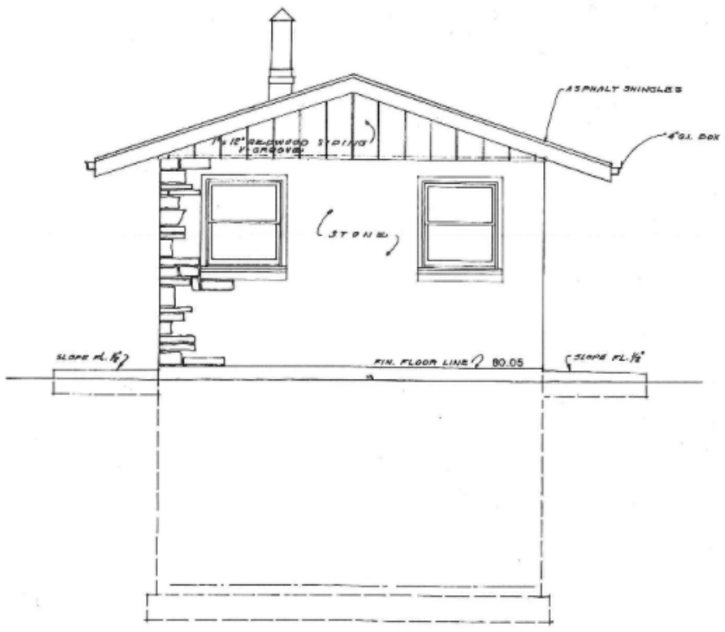
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN-EXISTING BUILDING	SCALE, FEET	SHEET NO: E

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\021193_pd.dgb DATE : 01-APR-2014 16:05 PLOT BY : dotres PLOT NAME : 021193 pd.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1.000000
WISDOT/CADDS SHEET 42
LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40, 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

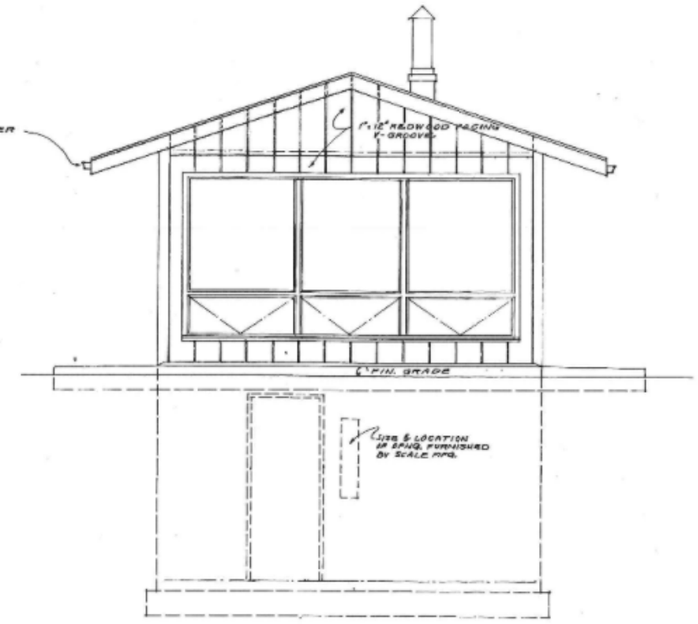
LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27, 28,29,30,31,32,33,34,35,36,37,38,39,40, 42,43,44,45,46,47, 48, 49,50,51,52,53,54,55,56,57, 58,59,60,61,62,63

PROJECT I.D.	SHEET
1194-1-75	2.18
PROJECT DESIGNATION	
TO8-5 (48)	

SCALEHOUSE DETAILS

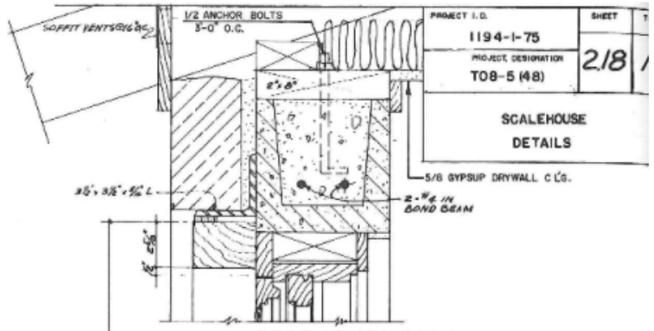


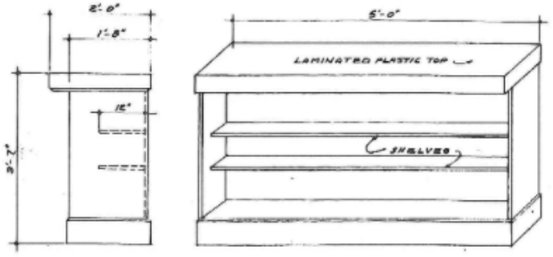
END ELEVATION



END ELEVATION

SCALE 3/8"=1'-0"

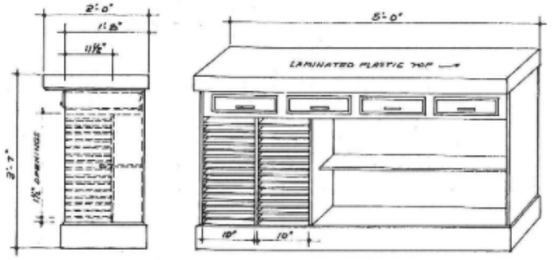




SIDE ELEV. BACK ELEV.

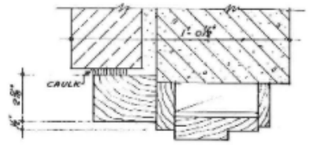
COUNTER "A"

NO SCALE

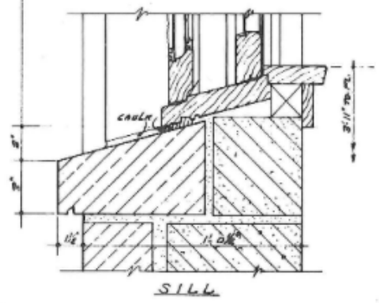


SIDE ELEV. BACK ELEV.

COUNTER "B"



DOOR JAMB



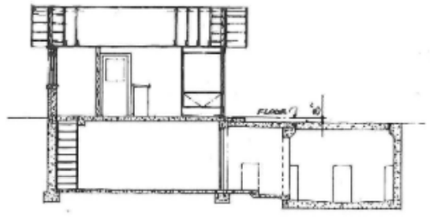
SILL

DOOR AND WINDOW DETAILS

SCALE 3"=1'-0"

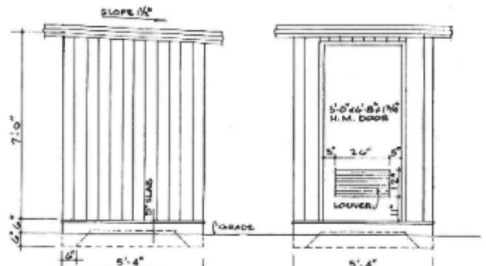
EXISTING PLANS

FOR INFORMATIONAL PURPOSES ONLY



SECT. THRU SCALE HOUSE & SCALE PIT

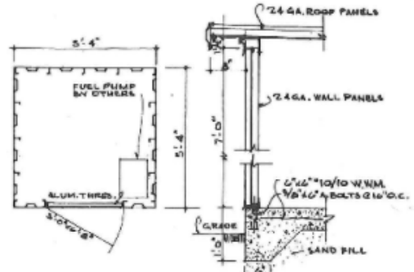
SCALE — 1/8"=1'-0"



SIDE ELEVATION FRONT ELEVATION

FUEL PUMP SHELTER BLDG.

SCALE — 3/8"=1'-0"



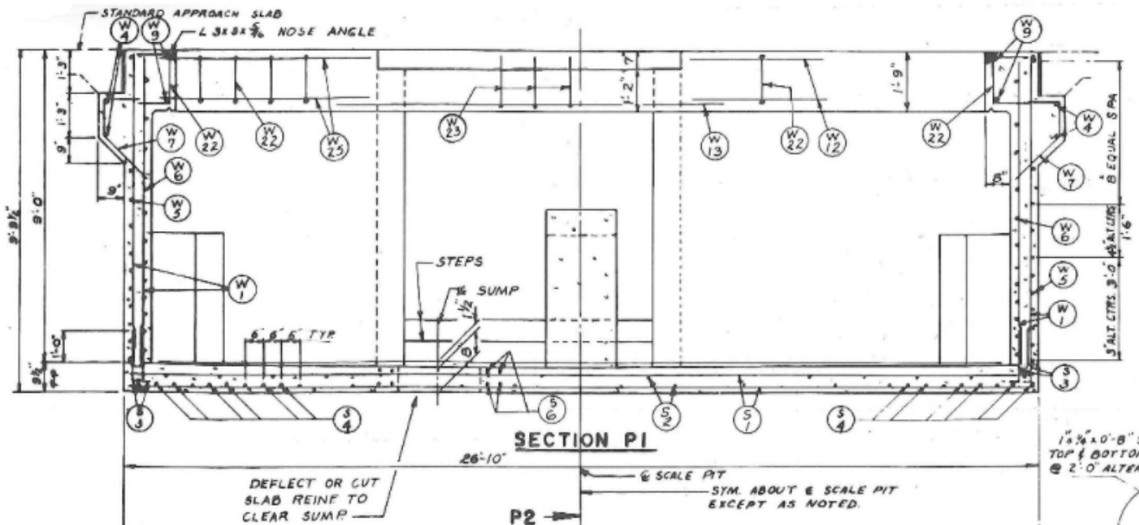
PLAN DETAILS

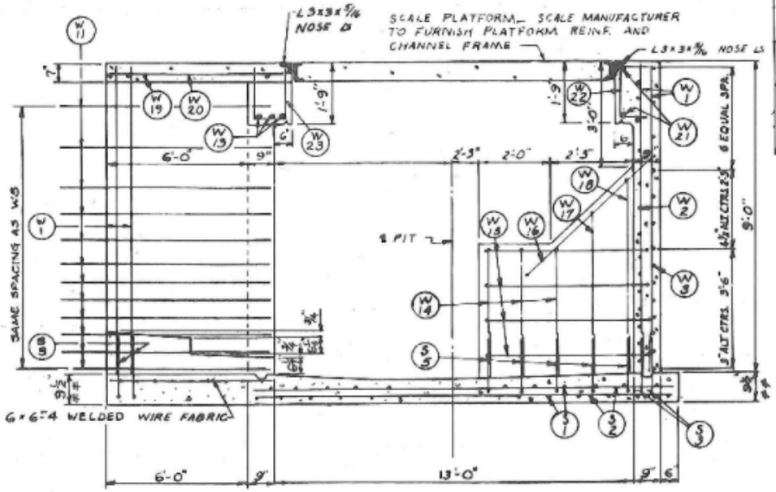
SCALE HOUSE

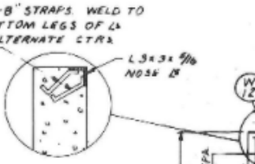
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN-EXISTING BUILDING	SCALE, FEET	SHEET NO:	E

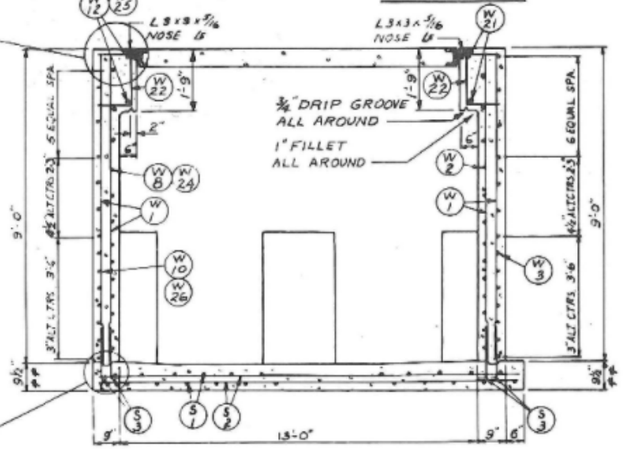
FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\021194_pd.dgn PLOT DATE : 01-APR-2014 16:35 PLOT BY : dotres PLOT NAME : 021194 pd.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1.000000
WISDOT/CADDS SHEET 42

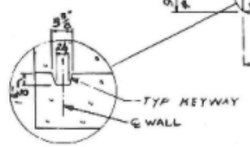
PROJECT I.D.	SHEET NO	TOTAL SHEETS
1194-1-75	2.19	16
PROJECT DESIGNATION		
T08-5(48)		
SCALE PIT DETAILS		

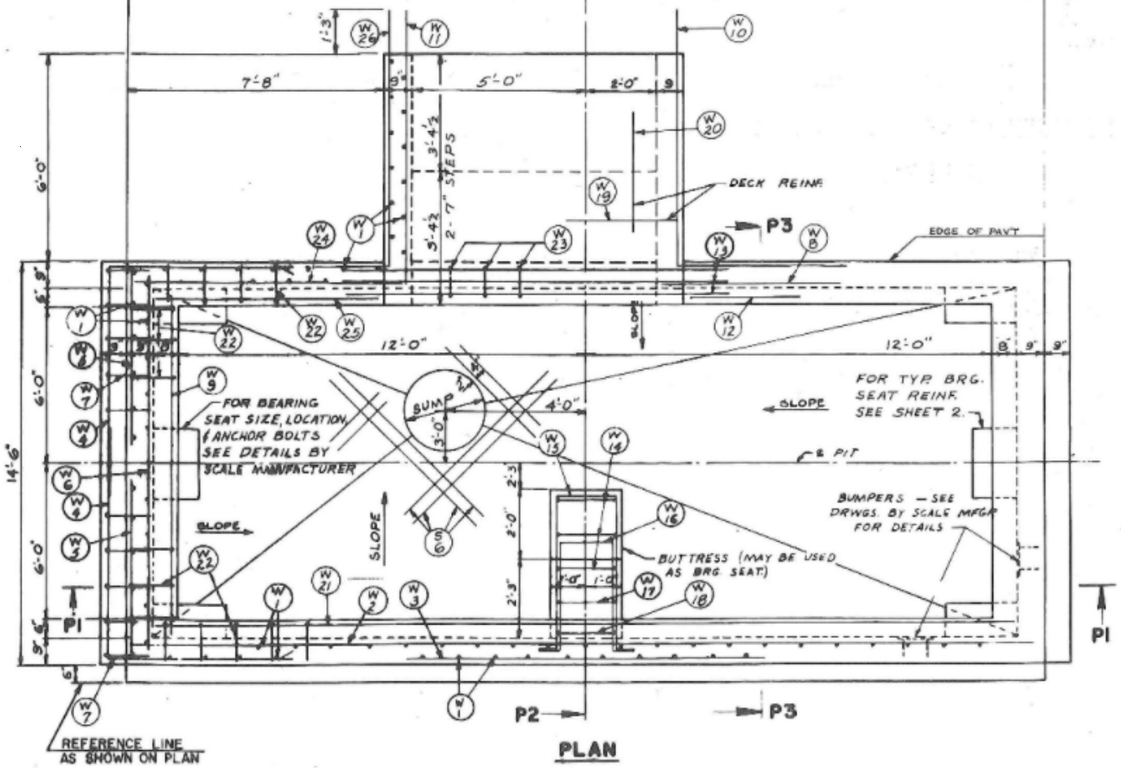










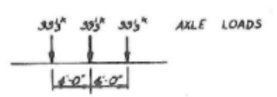


GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
CONCRETE MASONRY SHALL BE GRADE AA.
BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

BUMPERS SHALL BE FURNISHED BY SCALE MFGR. ALL OTHER STRUCTURAL STEEL SHALL BE FURNISHED BY SCALE PIT CONTRACTOR.
SLOPE TO AN 8" THICKNESS AT SUMP

LOADING:



APPROX. SCALE PIT QUANTITIES

*EXCAVATION FOR STRUCTURES	220C Y
*CONCRETE MASONRY	42.0C.Y
**BAR STEEL REINFORCEMENT	8050LB
STRUCTURAL CARBON STEEL	480 LB.
STEEL FABRIC REINFORCEMENT	3.55Y
SUMP	1 EA

* FROM TOP OF APPROACH SLAB.
* HOUSE FLOOR AND BRG. SEATS NOT INCLUDED.
** BRG. SEAT REINF NOT INCLUDED

EXISTING PLANS

FOR INFORMATIONAL PURPOSES ONLY

9' DEEP

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
5-68 F.O.M	SCALE PIT - 24' X 12'		
	AASHO '61	80 TON	1963
	10-31-62 F.O.M	DRAWN V.G.H.	
		SHEET 1 OF 2	

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN - EXISTING SCALE	SCALE, FEET 0	SHEET NO:	E

LEVELS ON : 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40, 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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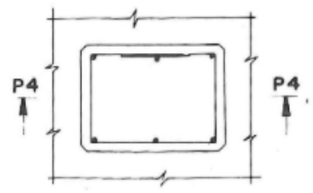
WISDOT/CADDS SHEET 42

BILL OF BARS

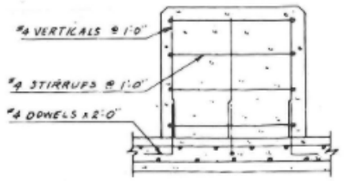
8050#

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT

MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET
S1	36	8	26-6	10	SLAB - LONG - TOP & BOTTOM	
S2	35	4	14-6	1-6	" TRANS " "	
S3	151	4	2-0	1-0	DOWELS	A
S4	12	6	14-6	6	SLAB - TRANS AT BRG. SEATS	
S5	10	4	2-0	1-0	DOWELS - BUTTRESS	A
S6	16	5	6-0	SHOWN	SLAB AT SUMP	
W1	151	4	8-9	1-0	WALLS - VERTICAL	
W2	13	7	26-6	SHOWN	" - HORIZ	
W3	14	7	10-0	"	" " AT BUTTRESS	
W4	8	5	13-3	"	" "	A
W5	44	5	10-0	"	" "	A
W6	24	5	14-0	"	" "	
W7	30	4	3-3	1-0	END CORBELS	B
W8	13	7	11-0	SHOWN	WALLS - HORIZ	
W9	4	4	13-0	"	" " TOP	
W10	13	5	13-0	SHOWN	WALLS - HORIZ	A
W11	24	5	7-9	"	" " SAME SPACING AS W8	
W12	2	4	10-0	"	" " - TOP	
W13	3	8	11-0	"	HEADER	
W14	3	4	8-9	1-0	BUTTRESS	C
W15	4	4	11-9	1-0	"	D
W16	1	4	12-3	SHOWN	"	D
W17	1	4	10-9	1-0	"	C
W18	1	4	12-9	1-0	"	C
W19	13	7	8-0	6	DECK	
W20	11	5	6-6	9	"	
W21	2	4	25-0	SHOWN	WALL - HORIZ - TOP	
W22	72	4	3-3	1-0	" VERT "	C
W23	7	4	3-9	1-0	HEADER	C
W24	13	7	8-0	SHOWN	WALL - HORIZ	
W25	2	4	7-0	"	" " TOP	
W26	13	5	10-0	"	WALL - HORIZ	A

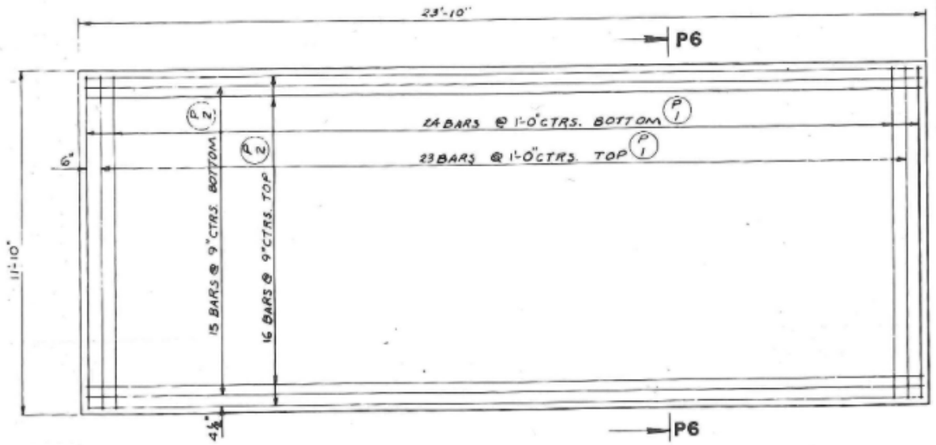


TYPICAL BEARING SEAT REINF.

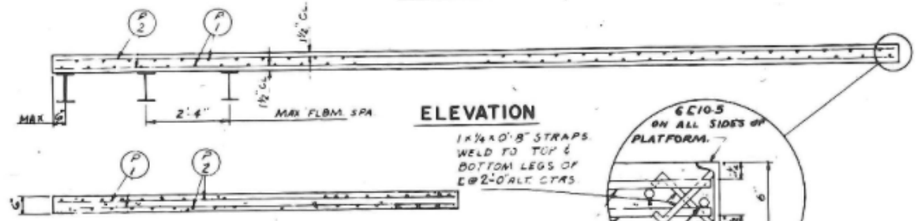


NOTE: BRG. SEAT REINF. DETAILS SHOWN ABOVE ARE TYPICAL. FOR EXACT SIZE AND LOCATION OF BRG. SEATS SEE DETAILS BY SCALE MANUFACTURER.

SECTION P4

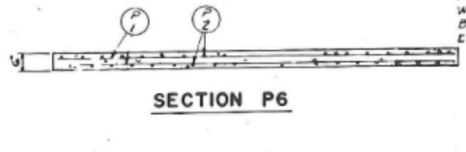


PLAN VIEW

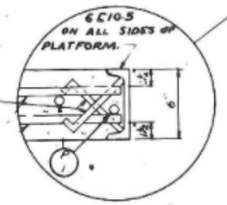


ELEVATION

1 x ¼ x 0'-8" STRAPS WELD TO TOP & BOTTOM LEGS OF P2 @ 2'-0" ALT. CTRS.



SECTION P6



BILL OF BARS

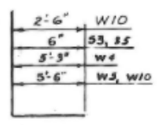
1,120#

MARK	NO.	SIZE	LENGTH	SPACING
P1	47	4	11'-6"	1-0
P2	31	5	23'-6"	9

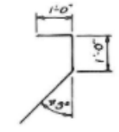
ESTIMATED PLATFORM QUANTITIES

CONCRETE MASONRY	8.2 C.Y.
BAR STEEL REINFORCEMENT	1,120 LB.
STRUCTURAL CARBON STEEL	790 LB.

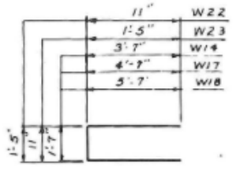
PLATFORM DETAILS



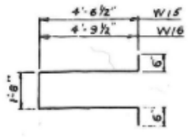
DETAIL A



DETAIL B



DETAIL C



DETAIL D

EXISTING PLANS

FOR INFORMATIONAL PURPOSES ONLY

STATE HIGHWAY COMMISSION OF WISCONSIN
9-68 F.O.M.
SCALE PLATFORM-24'X
AASHO '61 50 TON
11-21-62 F.O.M.
SHEET 2 OF 2
22245

PROJECT I.D. 1194-1-75
PROJECT DESIGNATION TOB-5 (48)
SHEET NUMBER 220
SCALE PLATFORM

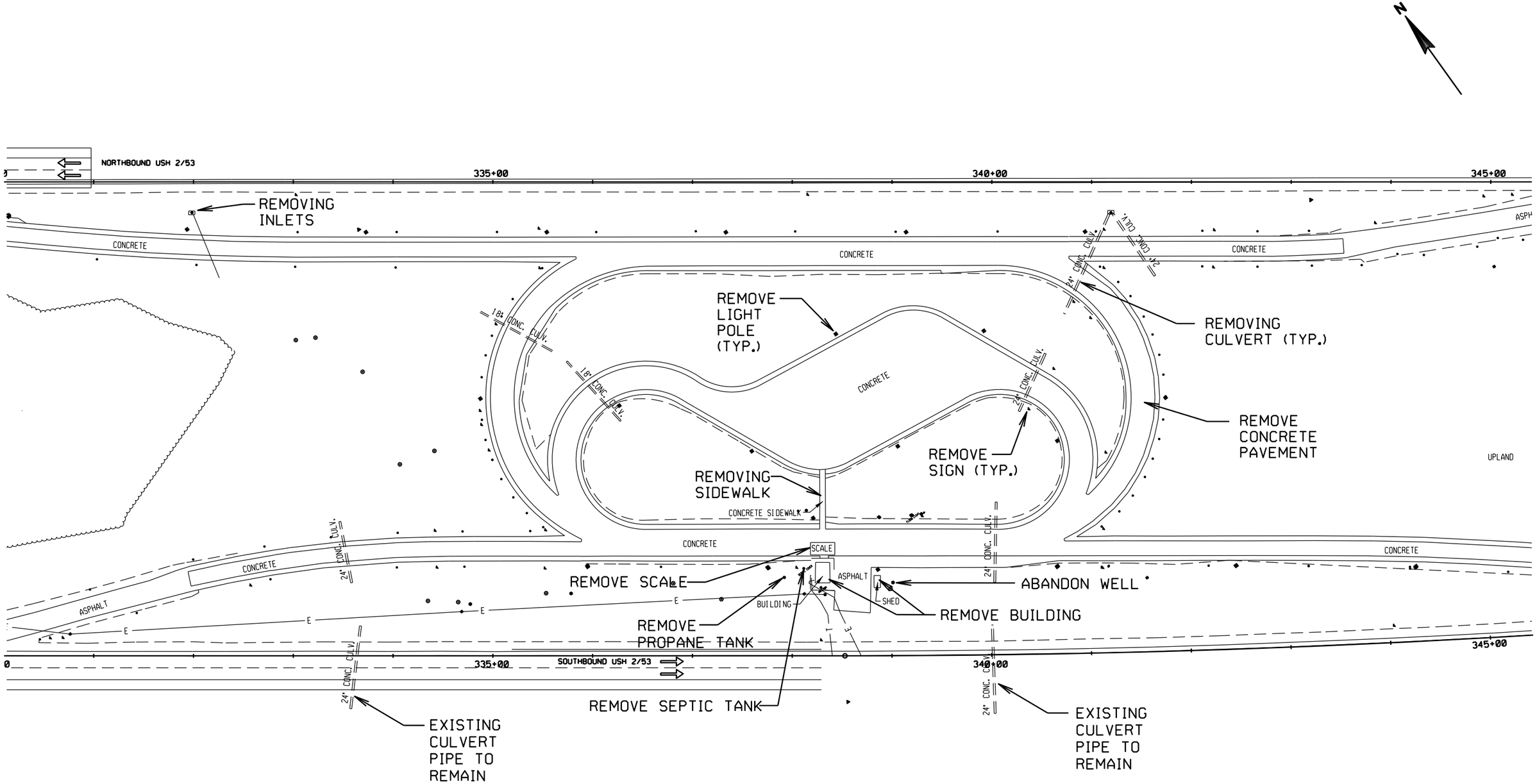
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN - EXISTING SCALE	SCALE, FEET	SHEET NO:	E

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40, 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\021196_pd.dgb OT DATE : 01-APR-2014 16:47 PLOT BY : dotres PLOT NAME : 021196 pd.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1.000000

WISDOT/CADDS SHEET 42

2



LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27, 28,29,30,31,32,33,34,35,36,37,38,39,40, 42,43,44,45,46,47, 48,49,50,51,52,53,54,55,56,57, 58,59,60,61,62,63

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN - EXISTING SITE	SCALE, FEET 0	SHEET NO:	E

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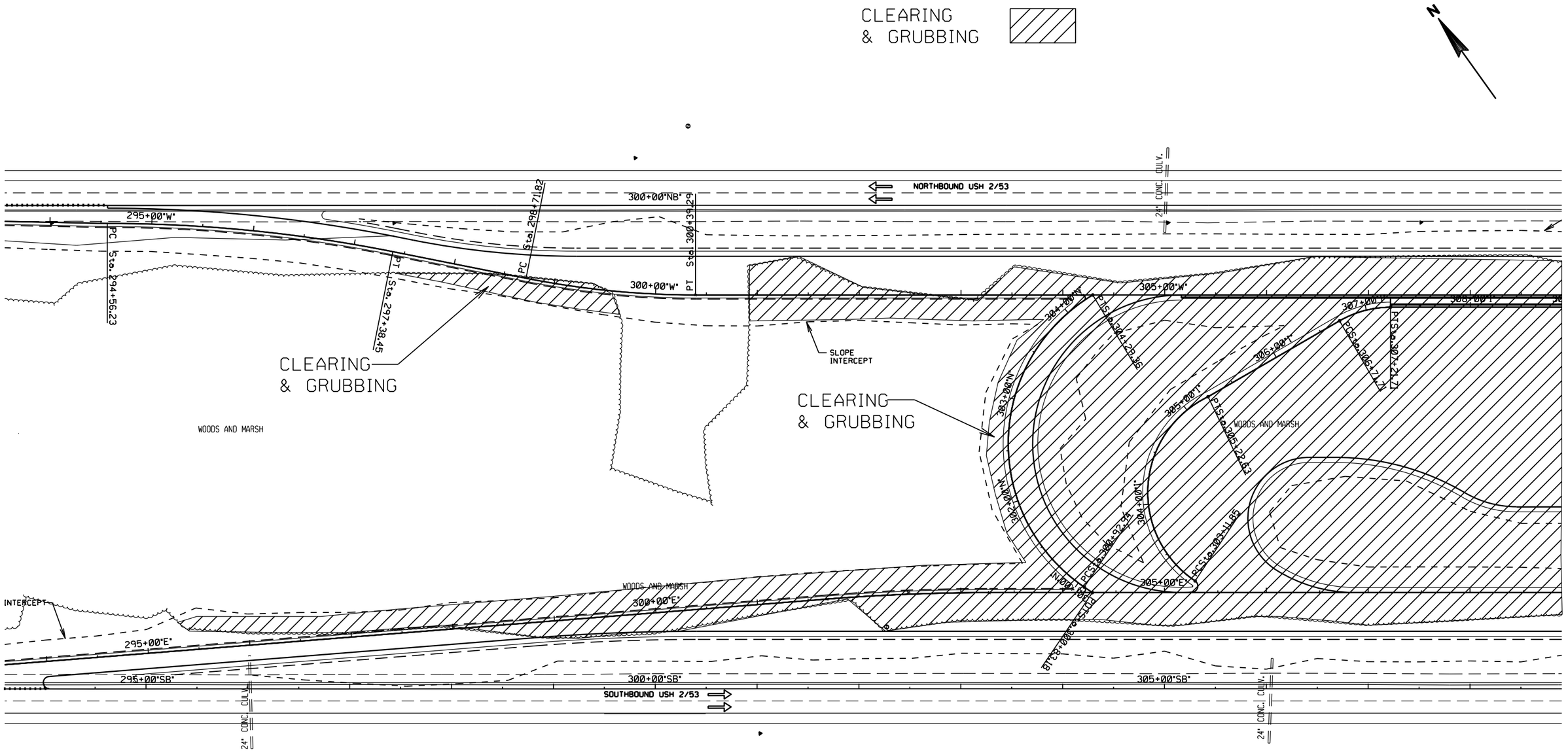
LEGEND

CLEARING & GRUBBING



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN - NEW SITE	SCALE, FEET 0	SHEET NO:	E

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WISDOT/CADDS SHEET 42

LEGEND

CLEARING & GRUBBING

REMOVE SMALL CULVERT PIPE 15 L.F., 30"

NORTHBOUND USH 2/53

30" CONC. CULV.

SLOPE INTERCEPT

310+00'W'

315+00'W'

320+00'W'

PC Sta 316+11.41

PT Sta 317+70.81

36" CONC. CULV.

SLOPE INTERCEPT

CLEARING & GRUBBING

UPLAND

WOODS AND MARSH

CLEARING & GRUBBING

WOODS AND MARSH

SLOPE INTERCEPT

CLEARING & GRUBBING

UPLAND

310+00'E'

315+00'E'

320+00'E'

SCALE

310+00'SB'

315+00'SB'

320+00'SB'

SOUTHBOUND USH 2/53

36" CONC. CULV.

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	REMOVAL PLAN - NEW SITE	SCALE, FEET	SHEET NO:	E

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WISDOT/CADDS SHEET 42

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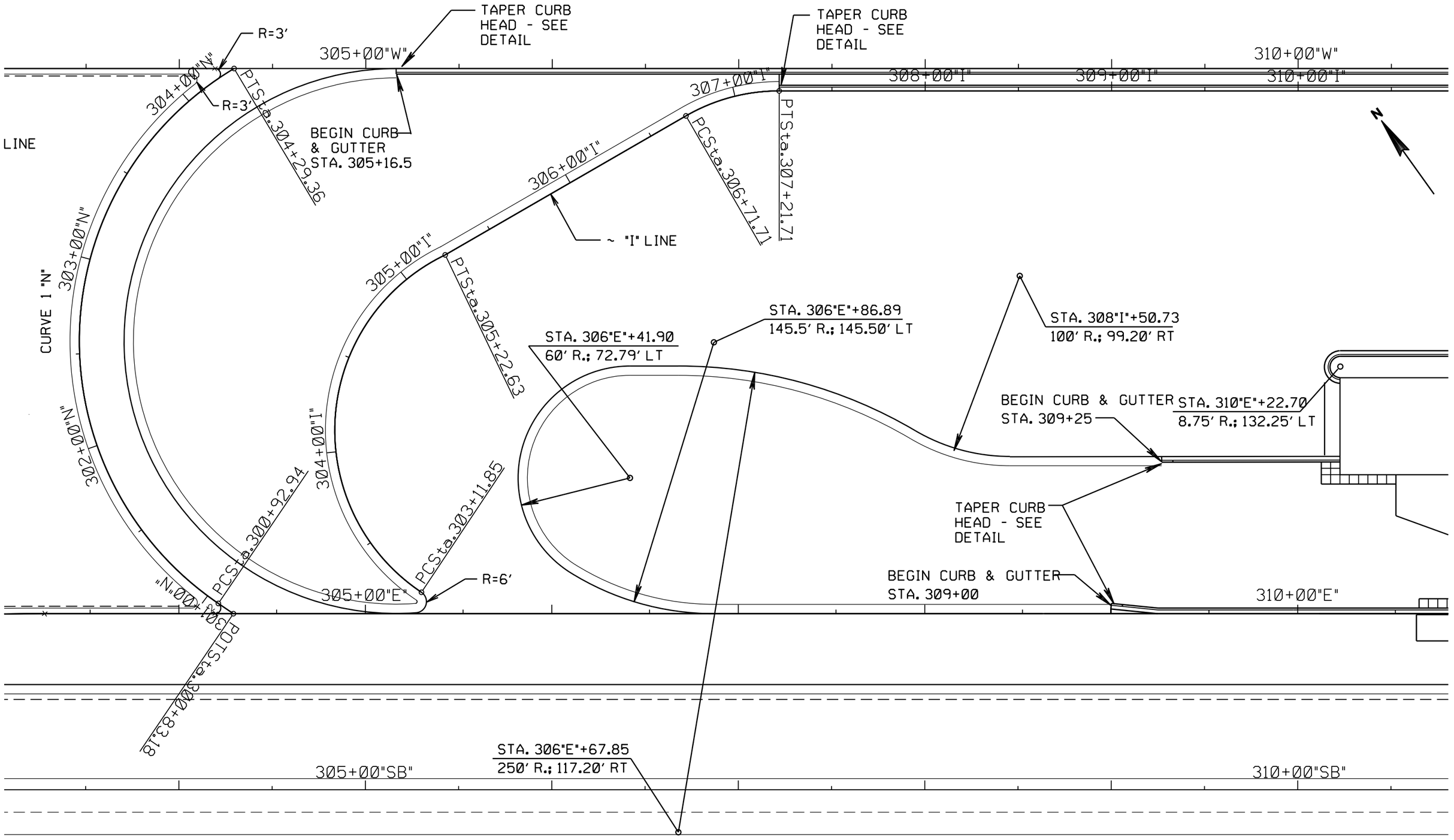
2



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	GEOMETRICS PLAN	SCALE, FEET 0	SHEET NO:	E

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WISDOT/CADDS SHEET 42

2

311+00"I" 312+00"I" 313+00"I" POTSta.313+69.49 STA. 313"I"+69.50 6' R.; 6.00' LT

315+00"W" POTSta.314+95.00 315+00"S" R=6' CURVE 3 "W" PC Sta. 316+11.41 PT Sta. 317+70.81

STA. 312"I"+90.53 100' R.; 15.03' RT

STA. 313"I"+53.14 20' R.; 66.85' RT

STA. 312"I"+37.29 100' R.; 99.41' RT

STA. 312"I"+66.95 10' R.; 105.06' RT

STA. 313"W"+85.43 117.00' RT

PCSta.315+61.62 316+00"S" 317+00"S"

STA. 314"E"+78.67 90' R.; 119.67' LT

STA. 311"E"+36.65 8.75' R.; 132.25' LT

STA. 314"E"+63.09 108.92' R.; 108.92' LT

CURB RAMP TY. 3

PCSta.318+46.28 318+00"S" ~ "E" LINE

312"E"+81.95

311"E"+64.15

315+00"E" R=6'

SCALE

311"E"+35.50 27.95' LT

311"E"+15.14 20.65' LT

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48, 49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	GEOMETRICS PLAN	SCALE, FEET 0	SHEET NO:	E

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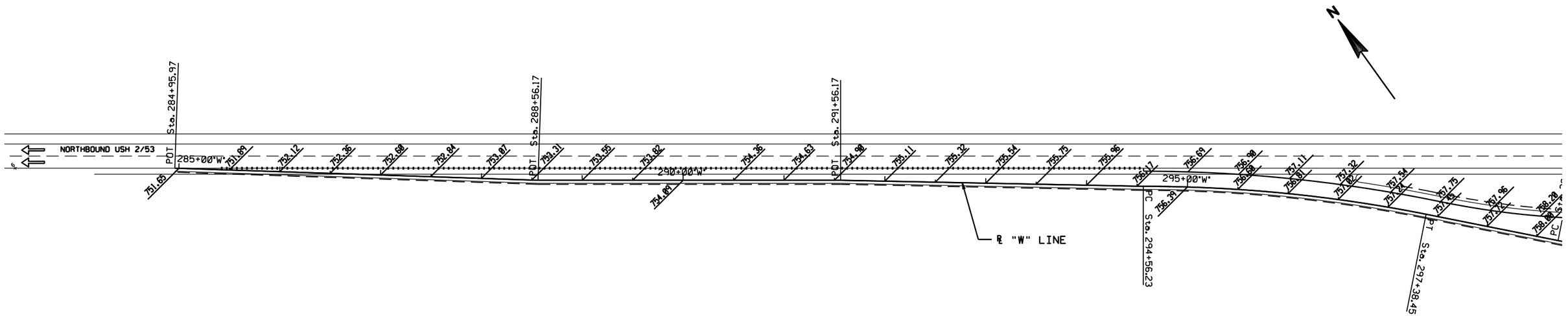
WISDOT/CADDS SHEET 42



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STATE PROJECT NUMBER:1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT GRADES	SCALE, FEET 0 50	SHEET NO:	E

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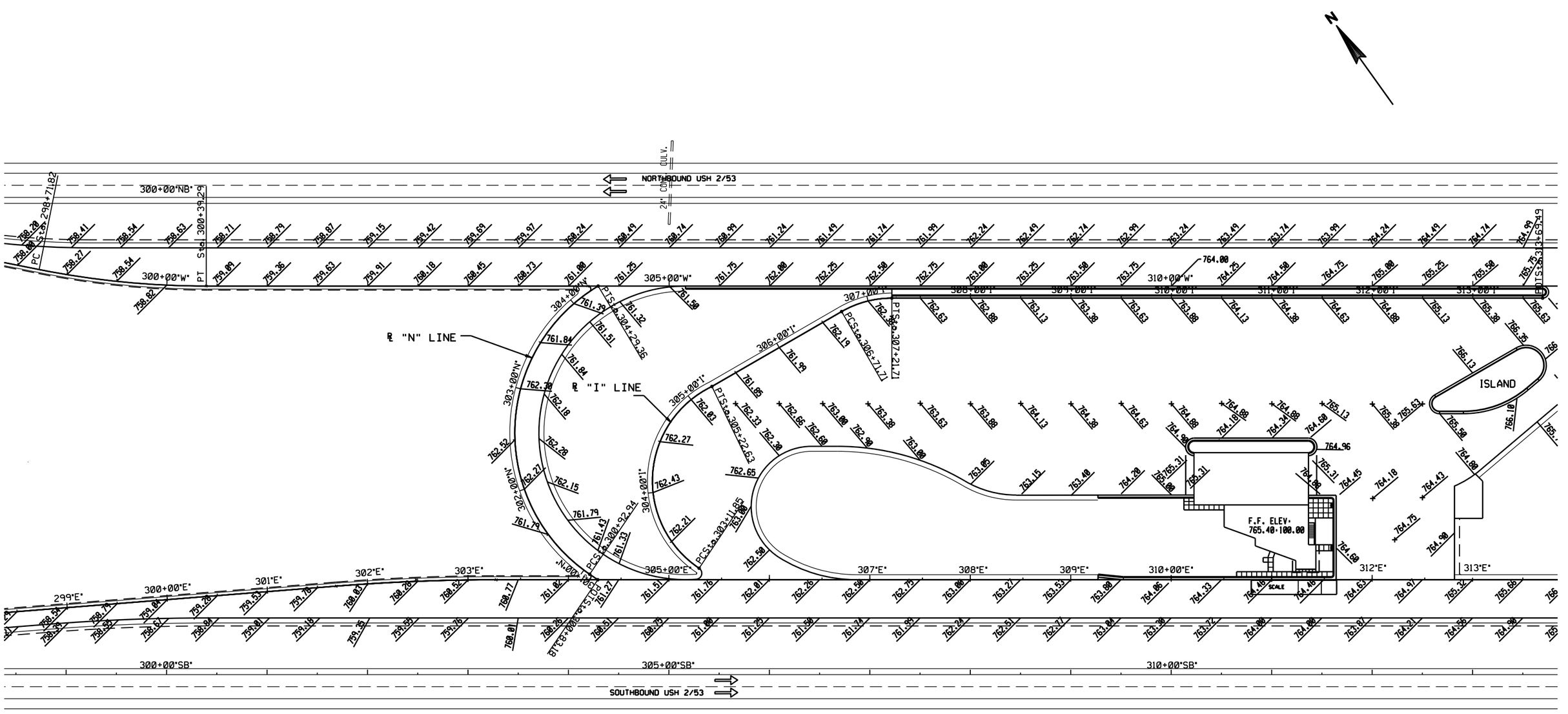

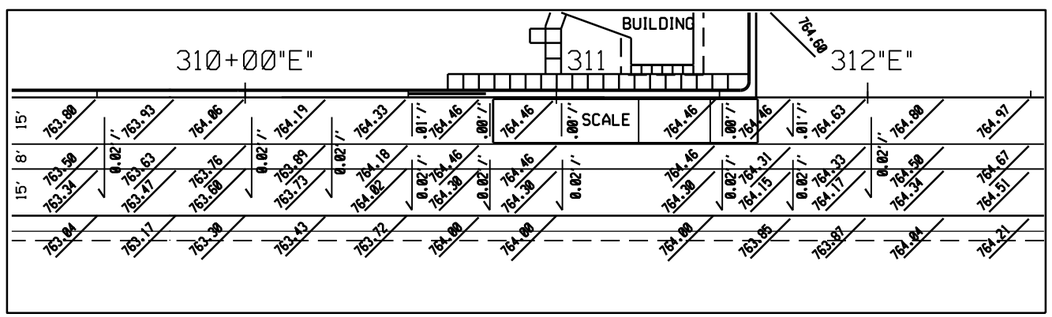

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT GRADES	SCALE, FEET 0 50	SHEET NO: E

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WISDOT/CADDS SHEET 42

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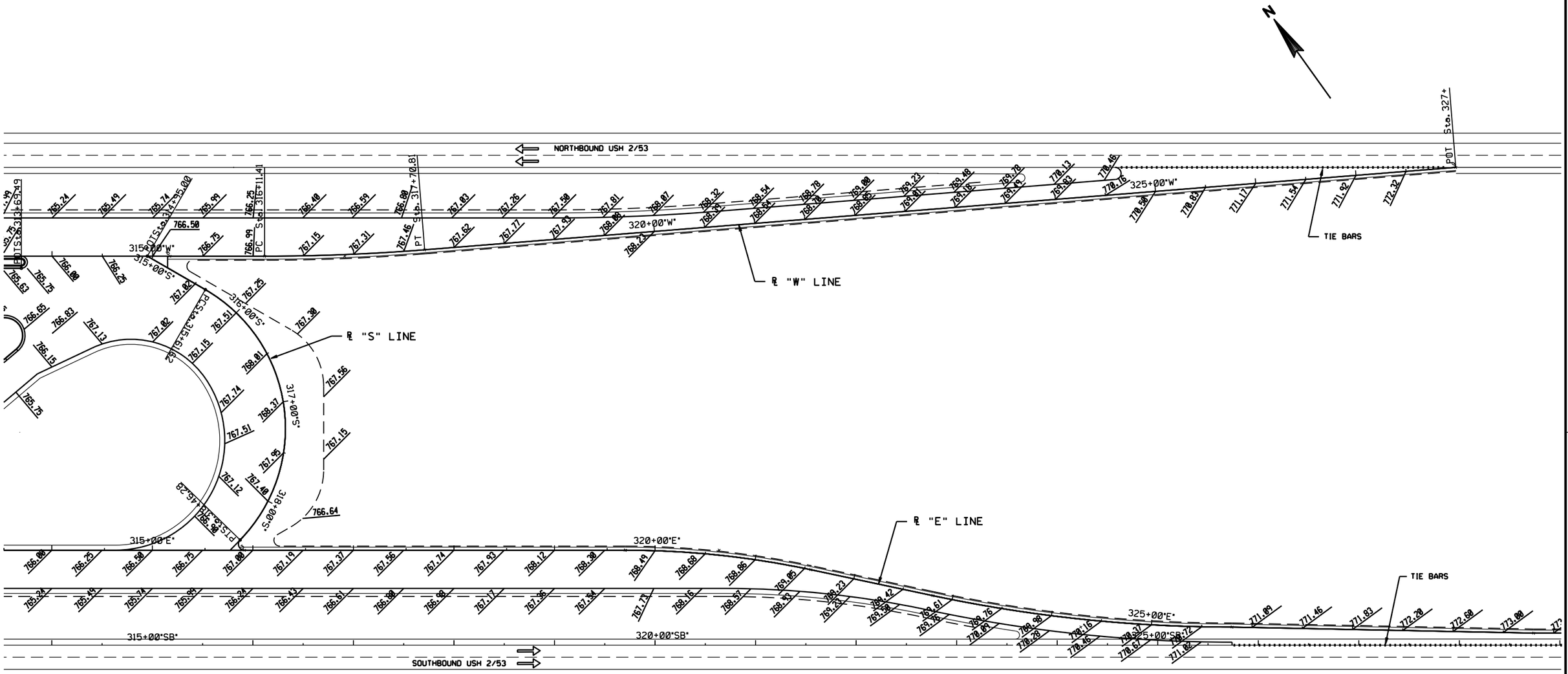
2



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT GRADES	SCALE, FEET 0 50	SHEET NO:	E

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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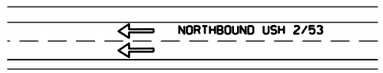
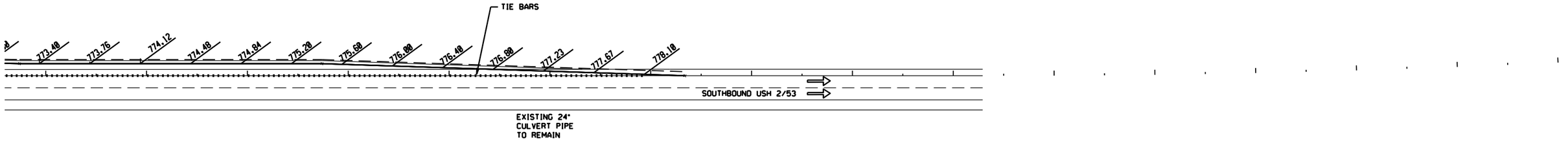
WISDOT/CADDS SHEET 42

2





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STATE PROJECT NUMBER:1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT GRADES	SCALE, FEET 0 50	SHEET NO:	E

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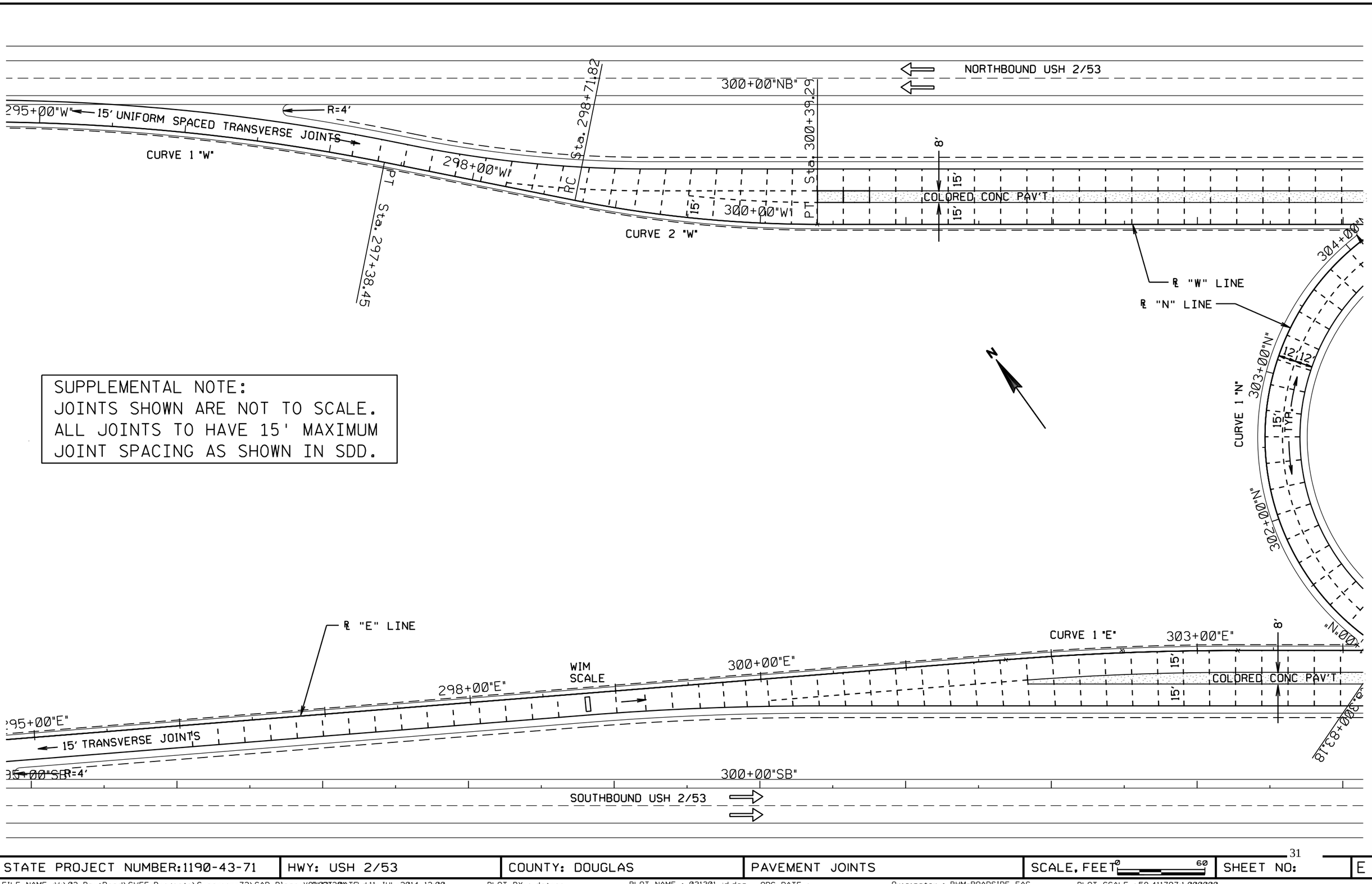
WISDOT/CADDS SHEET 42



SUPPLEMENTAL NOTE:
JOINTS SHOWN ARE NOT TO SCALE.
ALL JOINTS TO HAVE 15' MAXIMUM
JOINT SPACING AS SHOWN IN SDD.

STATE PROJECT NUMBER:1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT JOINTS	SCALE, FEET 0 60	SHEET NO:	E

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :W:\03 PavtRoad\SWEF-Projects\Superior-72\CAD Plans V8\021301pjt.dgn 17-JUL-2014 13:00 PLOT BY : dotres PLOT NAME : 021301 jd.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 58.411797:1.000000

WISDOT/CADDS SHEET 42

NORTHBOUND USH 2/53

24" CONC. CUL

CONCRETE
COLORED CONCRETE PAV'T
CONCRETE

ASPHALTIC SURFACE

SAFETY ISLAND

305+00"W" 308+00"W" 310+00"W" 313+00"W"

304+00"W" 305+00"T" 306+00"T" 307+00"T" 308+00"T" 309+00"T" 310+00"T" 311+00"T" 312+00"T" 313+00"T"

PTSta.304+29.36

PCSta.306+71.71

PTSta.307+21.71

PTSta.303+22.63

PTSta.303+11.85

PTSta.300+92.94

PCSta.300+30.00

N.00°12'30"E.

305+00"E" 308+00"E" 310+00"E" 313+00"E"

304+00"T"

+16 +95 +13 +25 +25 +50 +80 +60 +80 +65 +85 +65

8' 15' 5' 15' 8' 12' 16' 15' 15' 15' 15' 13' 5' 8'

15' TYP. 15' SPACING TYP.

CONCRETE

CONCRETE CURB TYPE SPECIAL

11.5'

PROPOSED BUILDING

PARKING AREA

5" HMA

CONC

TAPER

CONCRETE PAV'T
COLORED CONCRETE PAV'T
CONCRETE PAV'T

CONTINUOUS REINF. CONC. PAV'T
APP SLAB
SCALE
SCALE
SCALE
APP SLAB
CONTINUOUS REINF. CONC. PAV'T

15' TYP. 15' TYP. 16' TYP 10' TYP 14.2' TYP 10' TYP 16' TYP 15' TYP.

SUPPLEMENTAL NOTE:
JOINTS SHOWN ARE NOT TO SCALE.
ALL JOINTS TO HAVE 15' MAXIMUM
JOINT SPACING AS SHOWN IN SDD.

305+00"SB" 310+00"SB"

SOUTHBOUND USH 2/53

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT JOINTS	SCALE, FEET 0	SHEET NO: E

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :W:\03 PavtRoad\SWEF-Projects\Superior-72\CAD Plans V8\021302jd.dgn 10-JUL-2014 12:49 PLOT BY : dotres PLOT NAME : 021302 jd.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 58.411797:1.000000

WISDOT/CADDS SHEET 42

NORTHBOUND USH 2/53

CONCRETE MEDIAN
SLOPED NOSE

OTS Sta. 313+69.49

OTS Sta. 314+95.00

PC Sta. 316+11.41

PT Sta. 317+70.81

5'
8'
15'
15'

15' TYP.

COLORED CONC PAV'T

315+00"W"

318+00"W"

320+00"W"

15' TRANSVERSE JOINTS

WIM
SCALE

ASPH SURFACE

12

+75.5

CONCRETE PAV'T

R=6'

CURVE 3 "W"

315+00"S"

℄ "W" LINE

℄ "S" LINE

CONCRETE CURB
TYPE SPECIAL

15'
16'

5'

PC Sta. 315+46.28

PT Sta. 318+46.28

15' TYP.

317+00"S"

LEAKING TRUCK AREA

318+00"S"

℄ "E" LINE

5'

315+00"E"

R=6'

8'
3'
15'
15'
5'

318+00"E"

320+00"E"

CURVE 2 "E"

322+00"E"

COLORED CONC PAV'T

COLORED CONC PAV'T

15'
TYP.

315+00"SB"

320+00"SB"

SOUTHBOUND USH 2/53

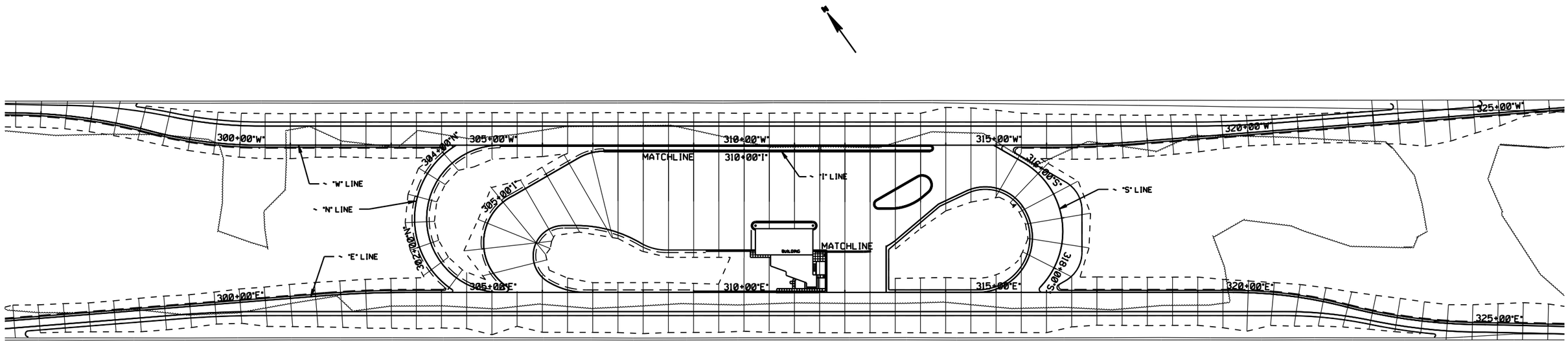
SUPPLEMENTAL NOTE:
JOINTS SHOWN ARE NOT TO SCALE.
ALL JOINTS TO HAVE 15' MAXIMUM
JOINT SPACING AS SHOWN IN SDD.

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19, 20,21,22,23,24,25,26,27, 28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44, 45,46,47, 48, 49,50,51,52,53,54,55,56,57, 58,59,60,61,62,63

STATE PROJECT NUMBER:1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT JOINTS	SCALE, FEET 0	SHEET NO:	E

FILE NAME :W:\03 PavtRoad\SWEF-Projects\Superior-72\CAD Plans V8\021303jd.dgn 10-JUL-2014 11:55 PLOT BY : dotres PLOT NAME : 021303 jd.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE :58.411797:1.000000
WISDOT/CADDS SHEET 42

2

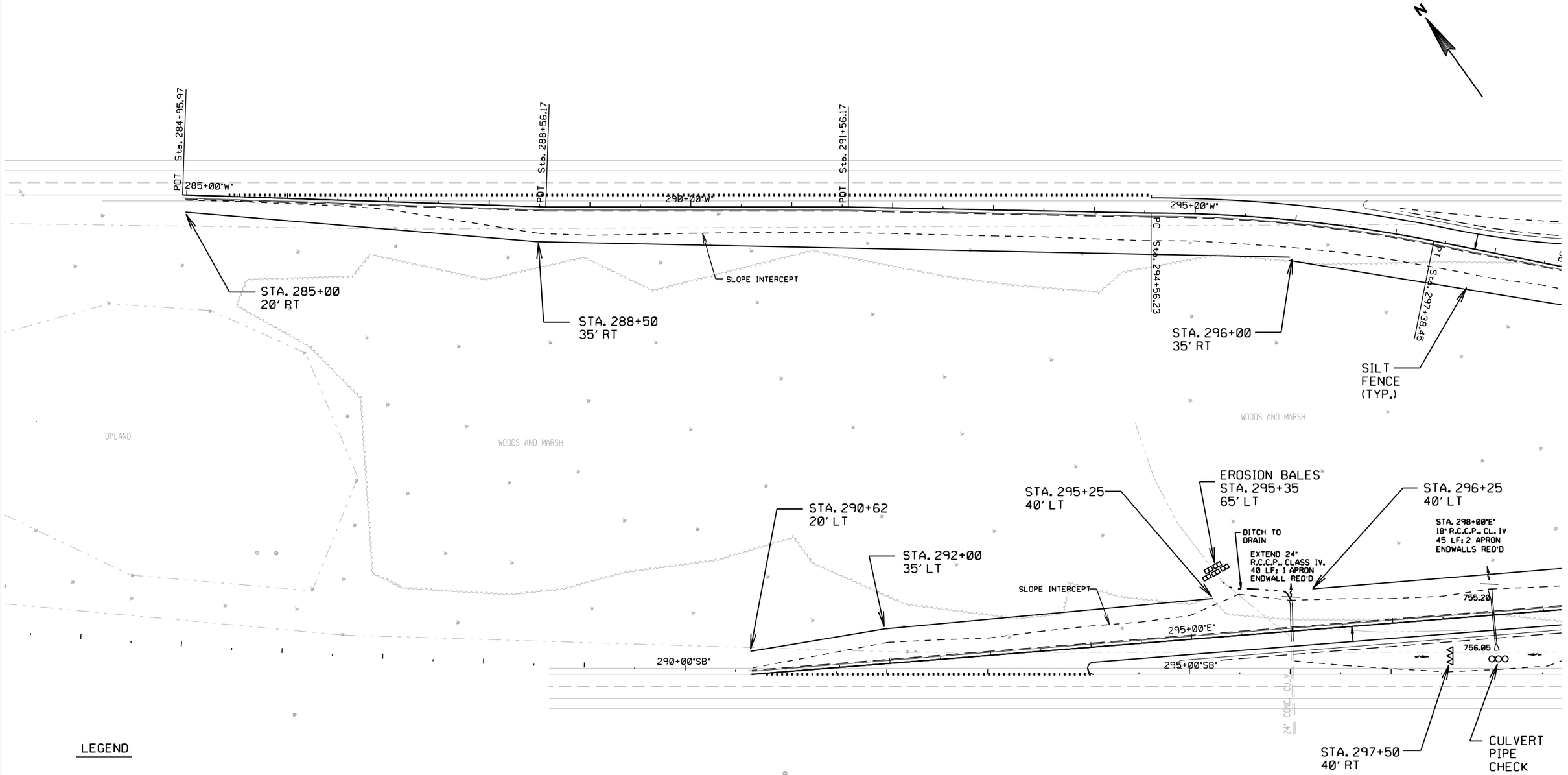


STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTION MATCH LINES	SCALE, FEET 0	SHEET NO:	E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27, 28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46, 47,48, 49,50,51,52,53,54,55,56,57, 58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\021701_xm.dgn PLOT DATE : 16-DEC-2013 16:06 PLOT BY : dotres PLOT NAME : 021701 xm.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 194.705896:1.000000

WISDOT/CADDS SHEET 42

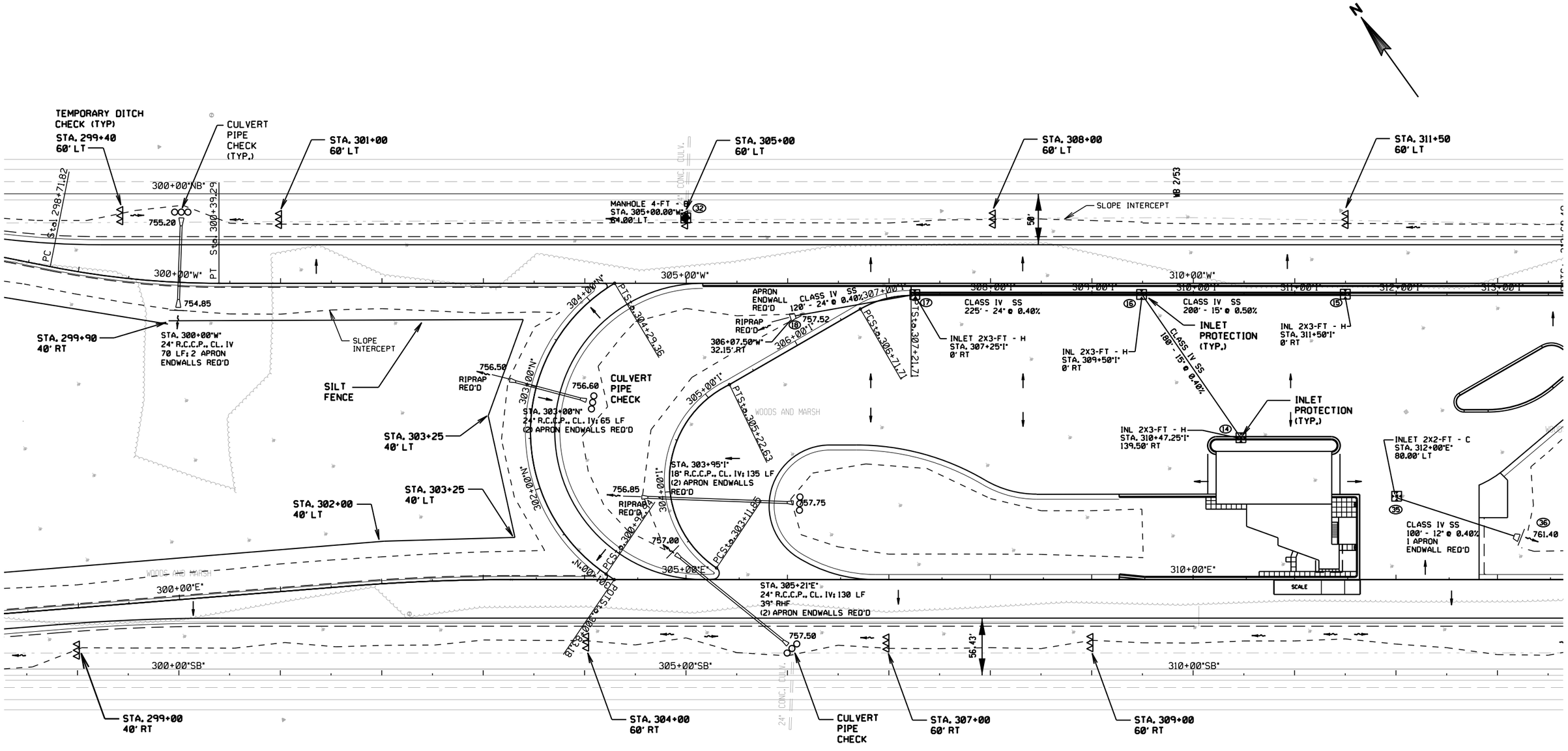


STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	EROSION CONTROL	SCALE: FEET 0	SHEET NO:	E

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\022001_ec.dgn PLOT DATE : 28-MAR-2014 08:04 PLOT BY : dotres PLOT NAME : 022001 ec.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1

WISDOT/CADDS SHEET 42



LEGEND

- EROSION BALES
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION

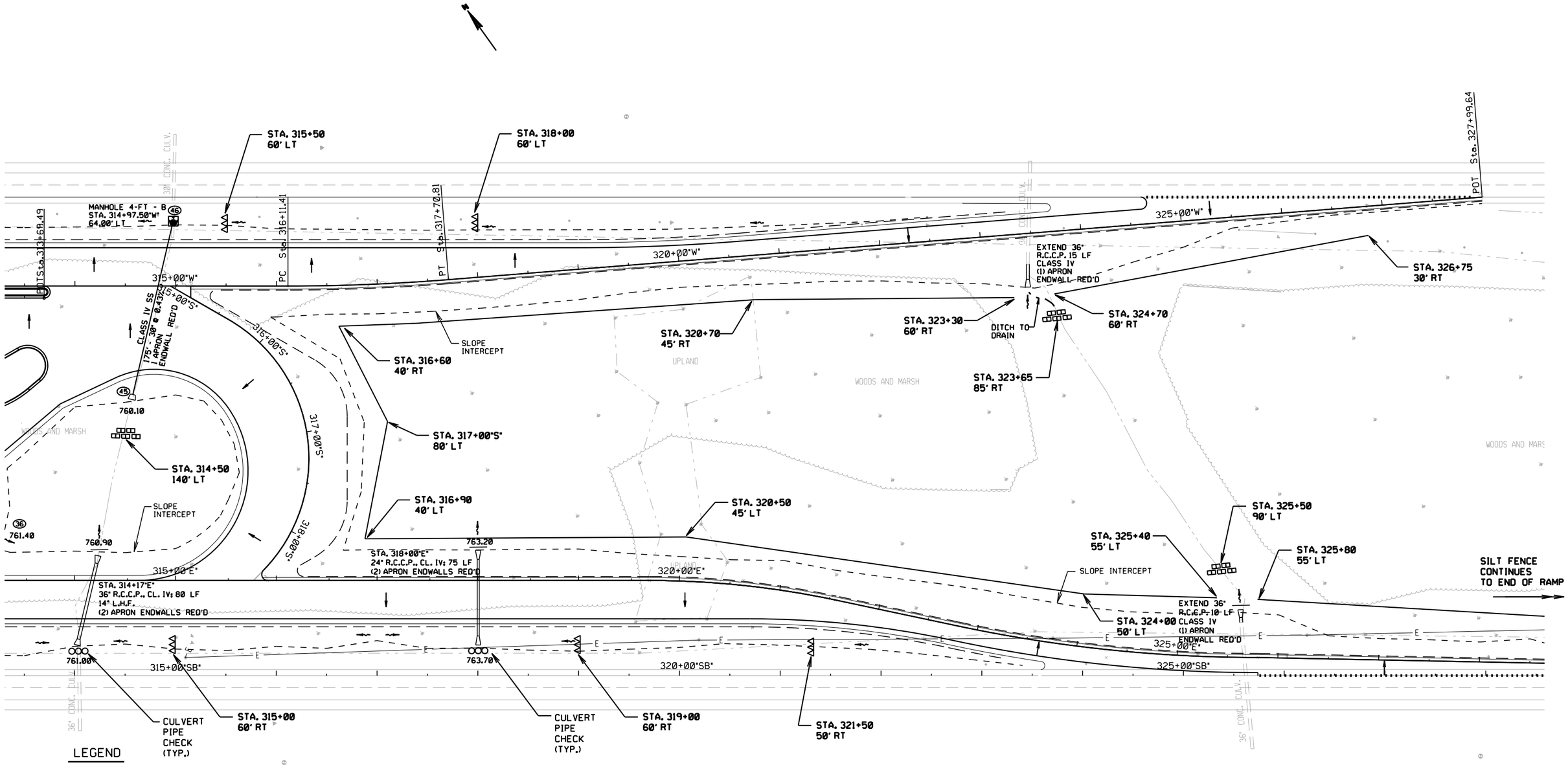
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	EROSION CONTROL	SCALE: FEET	SHEET NO: E

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\022002_ec.dgn PLOT DATE : 27-MAR-2014 17:10 PLOT BY : dotres PLOT NAME : 022002 ec.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1

WISDOT/CADDS SHEET 42

2



LEGEND

- EROSION BALES
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	EROSION CONTROL	SCALE, FEET	SHEET NO:	E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\022003_ec.dgn PLOT DATE : 28-MAR-2014 08:10 PLOT BY : dotres PLOT NAME : 022003 ec.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1

WISDOT/CADDS SHEET 42

CURVE 1 "W"

PC Sta. 294+56.23

PT Sta. 297+38.45

PC Sta. 2

755

755

755.20

754.85

300+00"W"

PT Sta. 300+

CURVE 2 "W"

STA. 300+00"W"
24" R.C.C.P., CL. IV
70 LF; 2 APRON
ENDWALLS REQ'D

SLOPE
INTERCEPT

WOODS AND MARSH

750

751

752

753

754

755

756

DITCH TO
DRAIN

EXTEND 24"
R.C.C.P., CLASS IV,
40 LF; 1 APRON
ENDWALL REQ'D

STA. 298+00"E"
18" R.C.C.P., CL. IV
45 LF; 2 APRON
ENDWALLS REQ'D

℄ "E" LINE

WOODS AND MARSH

CURVE

WIM
SCALE

300+00"E"

755.20

295+00"E"

756.05

295+00"SB"

300+00"SB"

757

758

759

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	DRAINAGE PLAN	SCALE, FEET 0	SHEET NO: E

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\022501_ss.dgn PLOT DATE : 16-DEC-2013 16:28 PLOT BY : dotres PLOT NAME : 022501 ss.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 48.676474:1.000000

WISDOT/CADDS SHEET 42

MANHOLE 4-FT - B
STA. 305+00.00"W"
64.00' LT
(32)

WB

SLOPE INTERCEPT

50'

R=3'

305+00"W"

304+00"N"

R=3'

PTSta.304+29.36

APRON ENDWALL REQ'D

CLASS IV SS
120' - 24" @ 0.40%

307+00"I"

308+00"I"

309+00"I"

310+00"W"

310+00"I"

PTSta.307+21.71

(17)

INLET 2X3-FT - H
STA. 307+25"I"
0' RT

CLASS IV SS
225' - 24" @ 0.40%

(16)

INL 2X3-FT - H
STA. 309+50"I"
0' RT

CLASS IV SS
180' - 15" @ 0.40%

CLASS IV SS
200' - 15" @ 0.50%

"W" LINE

RIPRAP REQ'D

(18)

757.52

306+07.50"W"
32.15' RT

306+00"I"

PCSta.306+71.71

℄ "I" LINE

756.50

RAP
'D

303+00"N"

CURVE 1 "N"

756.60

STA. 303+00"N"
24" R.C.C.P., CL. IV; 65 LF
(2) APRON ENDWALLS REQ'D

305+00"I"

PTSta.305+22.63

WOODS AND MARSH

INL 2X3-FT - H
STA. 310+47.25"I"
139.50' RT

(14)

STA. 303+95"I"
18" R.C.C.P., CL. IV; 135 LF
(2) APRON ENDWALLS REQ'D

304+00"I"

756.85

RIPRAP REQ'D

757.75

302+20"N"

PCSta.300+92.64

PCSta.303+11.85

757.00

R=6'

305+00"E"

310+00"E"

"N"00+01.20

PCSta.300+83.18

STA. 305+21"E"
24" R.C.C.P., CL. IV; 130 LF
39° RHF
(2) APRON ENDWALLS REQ'D

757.50

56.43'

305+00"SB"

310+00"SB"

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	DRAINAGE PLAN	SCALE: FEET 0	SHEET NO:	E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 10,11,12,13,14,15,16,17,18,19,20,21, 22,23, 24,25,26,27,28,29,30,31,32, 34,35,36,37, 39,40,41,42,43,44,45, 46,47,48, 49,50,51,52,53,54,55,56,57,58,59, 60,61, 62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\022502_ss.dgn PLOT DATE : 28-MAR-2014 08:17 PLOT BY : dotres PLOT NAME : 022502 ss.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 48.676474:1

WISDOT/CADDS SHEET 42

MANHOLE 4-FT - B
STA. 314+97.50"W"
64.00' LT

POT Sta. 313+69.49

POT Sta. 314+95.00

315+00"W"

PC Sta. 316+11.41

PT Sta. 317+70.

311+00"I" 312+00"I" 313+00"I"

15

INL 2X3-FT - H
STA. 311+50"I"
0' RT

CLASS IV SS
175' - 30" @ 0.43%
1 APRON
ENDWALL REQ'D

15+00"S"

R=6'

CURVE 3 "W"

PCS Sta. 315+61.62

316+00"S"

SLOPE
INTERCEPT

℄ "S" LINE

45

760.10

WOODS AND MARSH

317+00"S"

INLET 2X2-FT - C
STA. 312+00"E"
80.00' LT

35

CLASS IV SS
100' - 12" @ 0.40%
1 APRON
ENDWALL REQ'D

36

761.40

760.90

SLOPE
INTERCEPT

PTS Sta. 318+46.28

318+00"S"

℄ "E" LINE

763.20

315+00"E"

R=6'

STA. 318+00"E"
24" R.C.C.P., CL. IV; 75 LF
(2) APRON ENDWALLS REQ'D

STA. 314+17"E"
36" R.C.C.P., CL. IV; 80 LF
14° L.H.F.
(2) APRON ENDWALLS REQ'D

761.00

763.70

SCALE

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	DRAINAGE	SCALE, FEET 0	SHEET NO: E

40

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\022503_ss.dgn PLOT DATE : 28-MAR-2014 08:22 PLOT BY : dotres PLOT NAME : 022503 ss.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 48.676474:1

WISDOT/CADDS SHEET 42

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21, 22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

2

R=4'

R=6'

325+ØØ"W"

320+ØØ"W"

WIM
SCALE

EXTEND 36"
R.C.C.P. 15 LF
CLASS IV
(1) APRON
ENDWALL REQ'D

℄ "W" LINE

DITCH TO
DRAIN

N

UPLAND

WOODS AND MARSH

320+ØØ"E"

CURVE 2 "E"

SLOPE INTERCEPT

EXTEND 36"
R.C.C.P. 10 LF
CLASS IV
(1) APRON
ENDWALL REQ'D

325+ØØ"E"

CURVE 3 "E"

320+ØØ"SR"

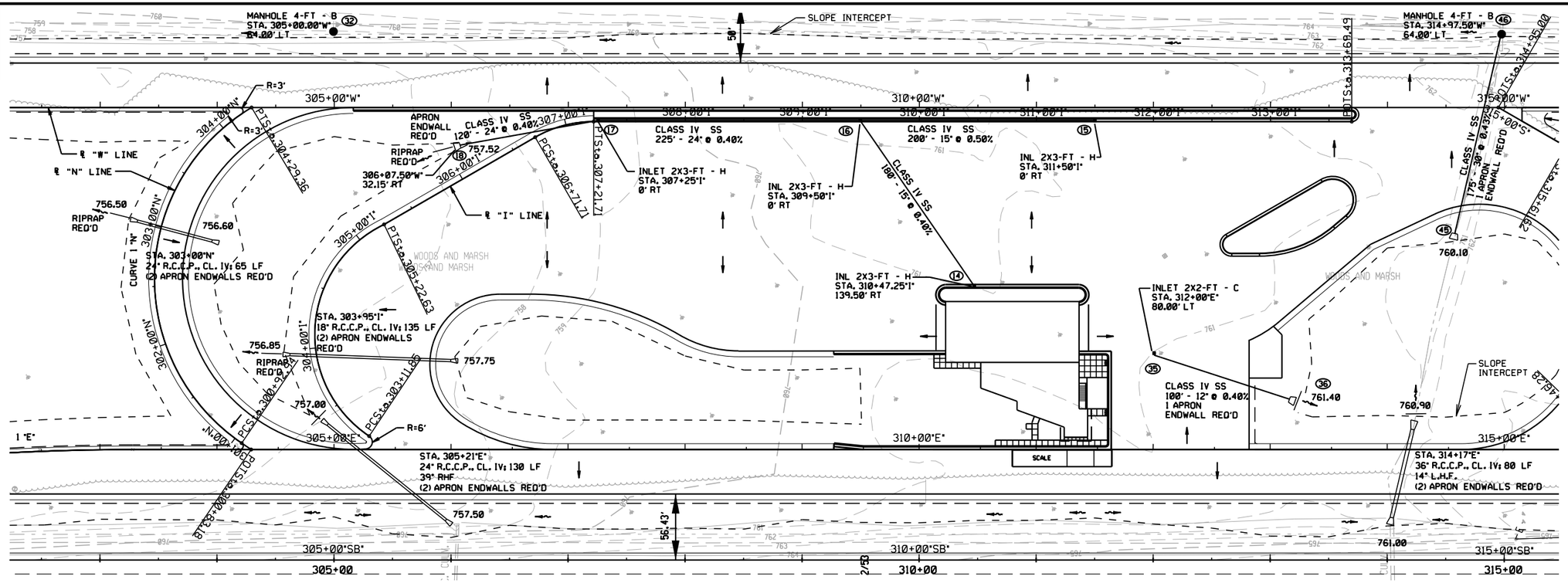
325+ØØ"SR"

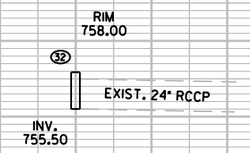
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	DRAINAGE	SCALE, FEET 0	SHEET NO: E

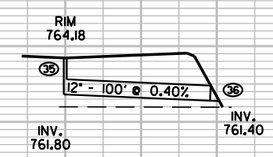
LEVELS ON • 1,2,3,4,5,6,7,8,9, 10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

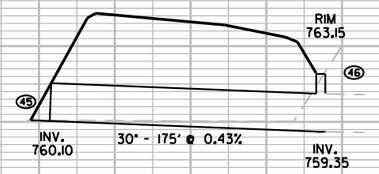
FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\022504_ss.dgn PLOT DATE : 28-MAR-2014 08:26 PLOT BY : dotres PLOT NAME : 022504 ss.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 48.676474:1

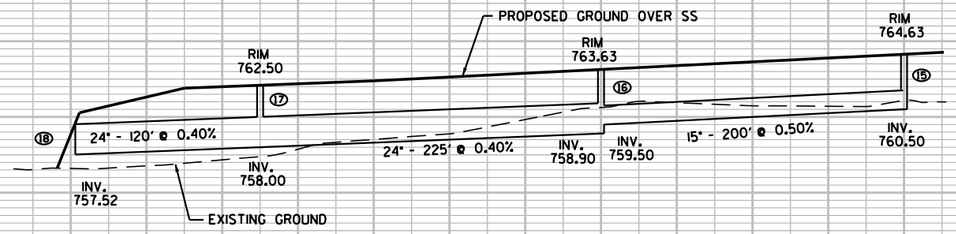
WISDOT/CADDS SHEET 42

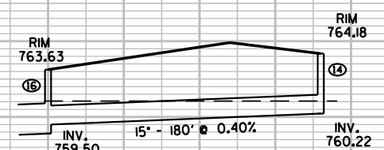












765 760 755

302+50 303+00 303+50 304+00 304+50 305+00 305+50 306+00 306+50 307+00 307+50 308+00 308+50 309+00 309+50 310+00 310+50 308+50

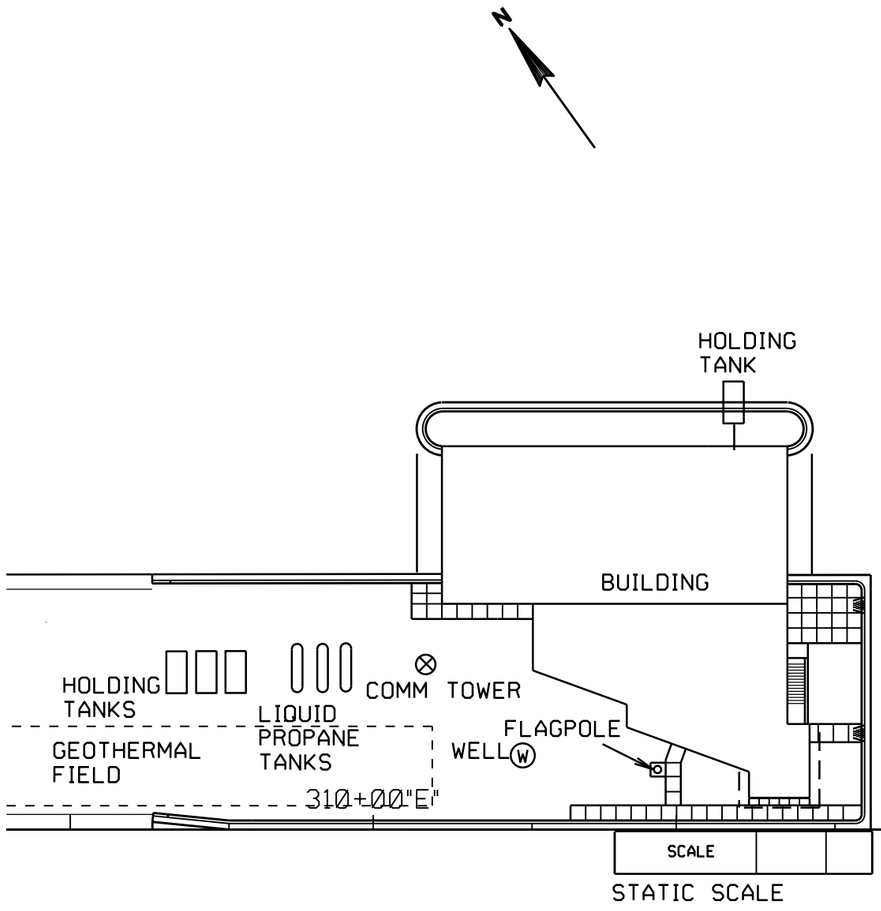
STATE PROJECT NUMBER:1190-43-71	HWY: USH 2/53	COUNTY:DOUGLAS	STORM SEWER PROFILES	SHEET NO: 42	E

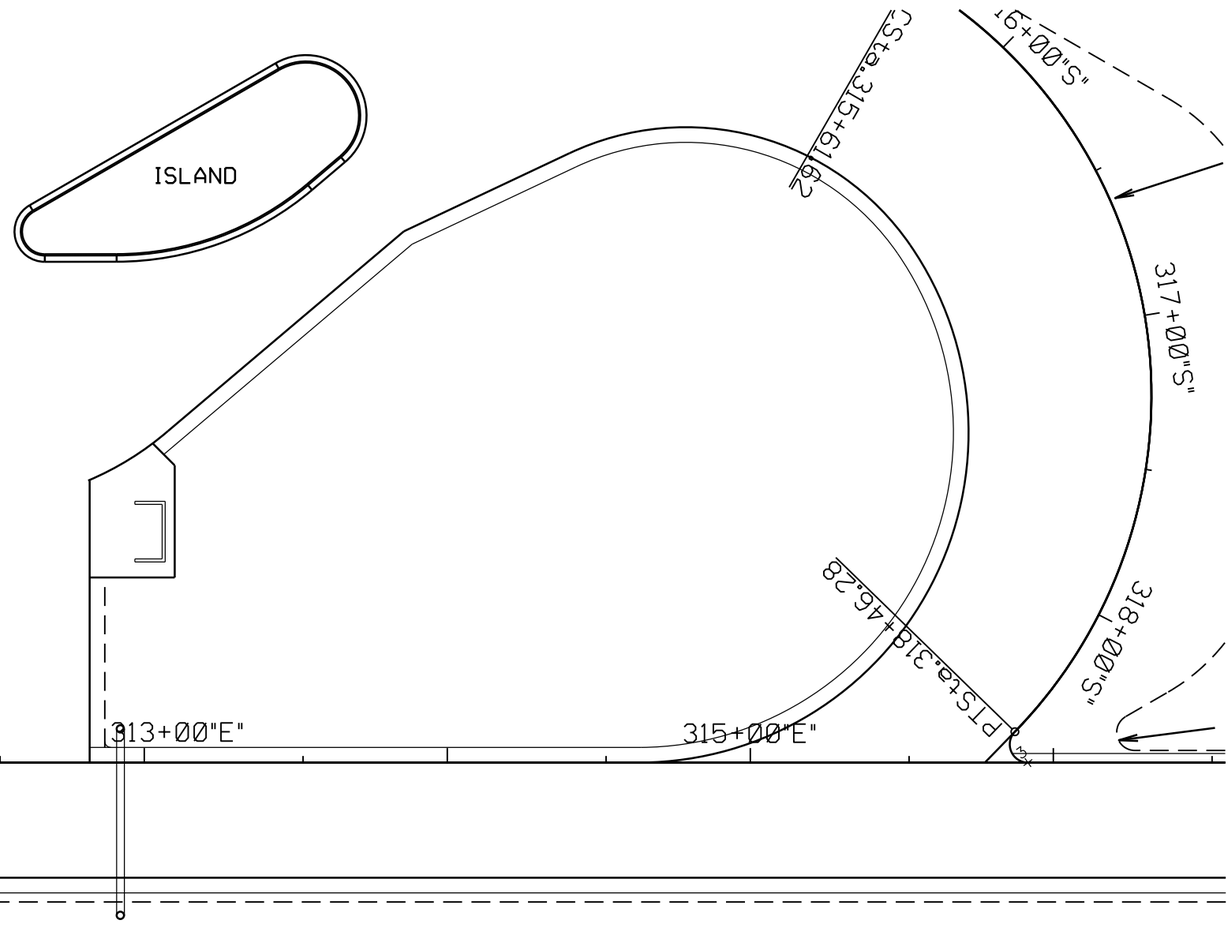
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\022505_ss.dgn PLOT DATE : 28-MAR-2014 08:32 PLOT BY : dotres PLOT NAME : 022505 ss.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE :100.000586:1.000000

2

LEVELS ON : 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

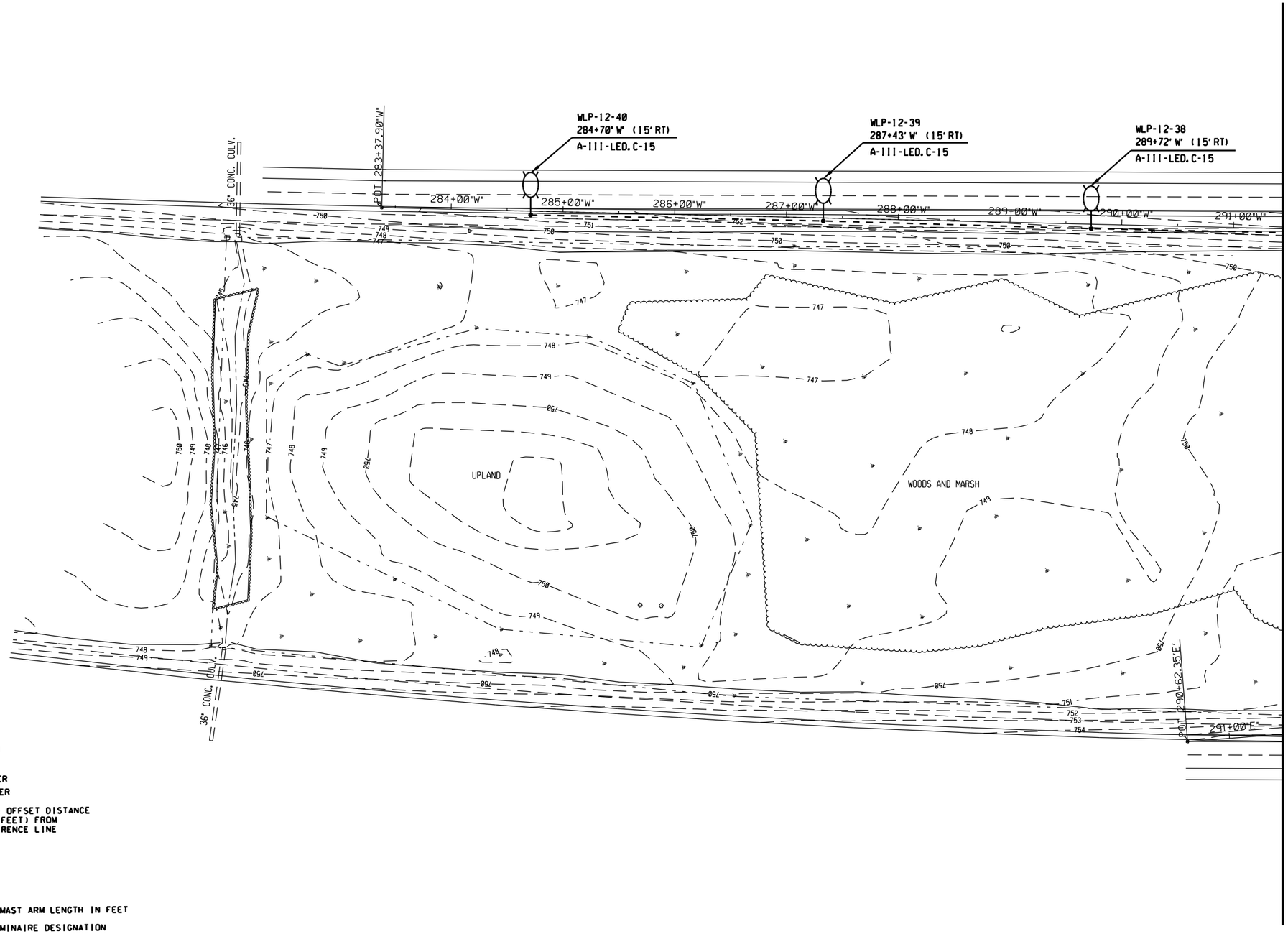


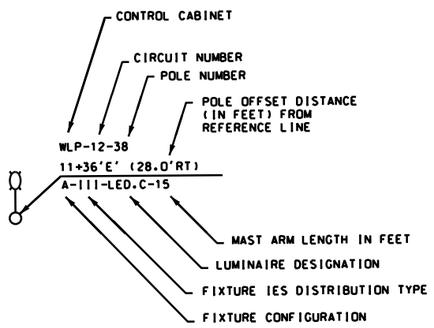


STATE PROJECT NUMBER:1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SITE UTILITIES PLAN	SCALE, FEET 0	SHEET NO:	E

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\023001_up.dgn PLOT DATE : 21-MAR-2014 10:39 PLOT BY : dotres PLOT NAME : 023001 up.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 50.000000:1.000000

2





E1

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SITE - ELECTRICAL	SCALE:	SHEET	E

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

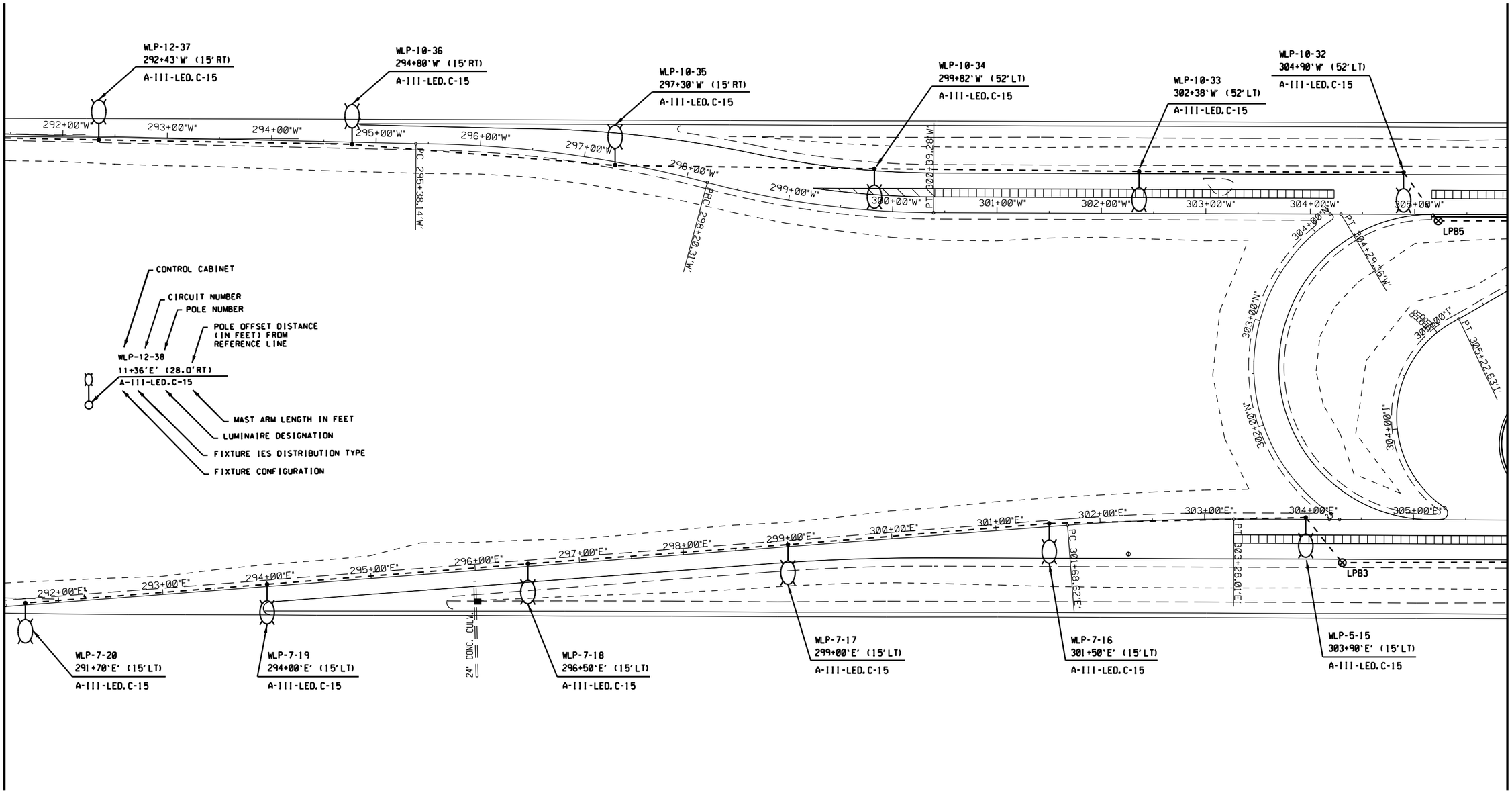
FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\023011_sl.dgn PLOT DATE : 20-FEB-2014 14:23 PLOT BY : dotres PLOT NAME : 023011 sl.dgn PLOT SCALE : 97.350837:1.000000

WISDOT/CADDS SHEET 42

TO DRAWING E1

TO DRAWING E3

LEVELS ON • 2,3,4,5,6, 9,10,11,12,13,14,15,16,17, 21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



E2

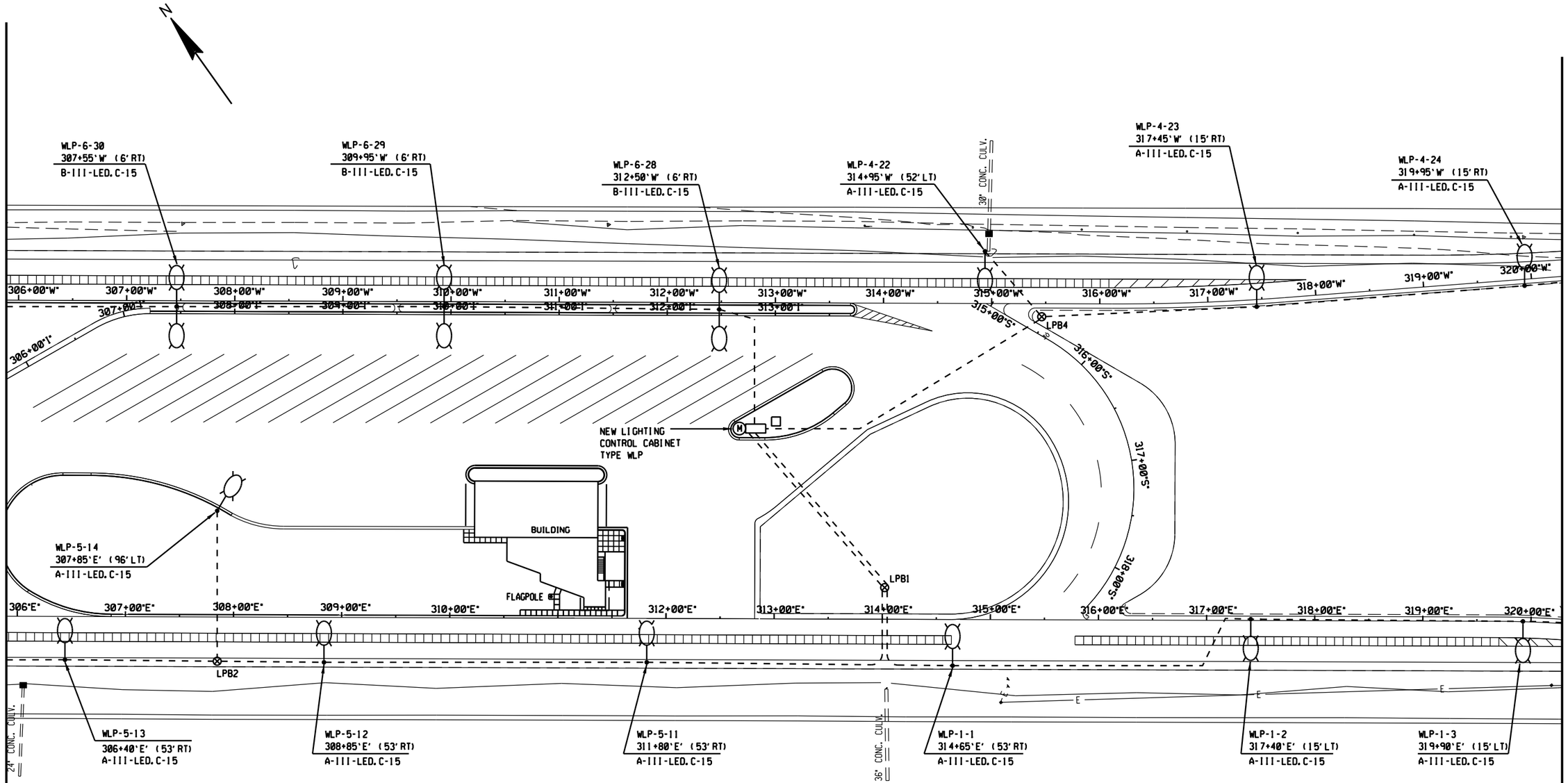
PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SITE - ELECTRICAL	SCALE:	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\023012_sl.dgn PLOT DATE : 20-FEB-2014 13:14 PLOT BY : dotres PLOT NAME : 023012 sl.dgn PLOT SCALE : 97.350837:1.000000

WISDOT/CADDS SHEET 42

TO DRAWING E2

TO DRAWING E4



E3

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SITE - ELECTRICAL	SCALE:	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\023013_sl.dgn PLOT DATE : 20-FEB-2014 14:51 PLOT BY : dotres PLOT NAME : 023013 sl.dgn PLOT SCALE : 97.350837:1.000000

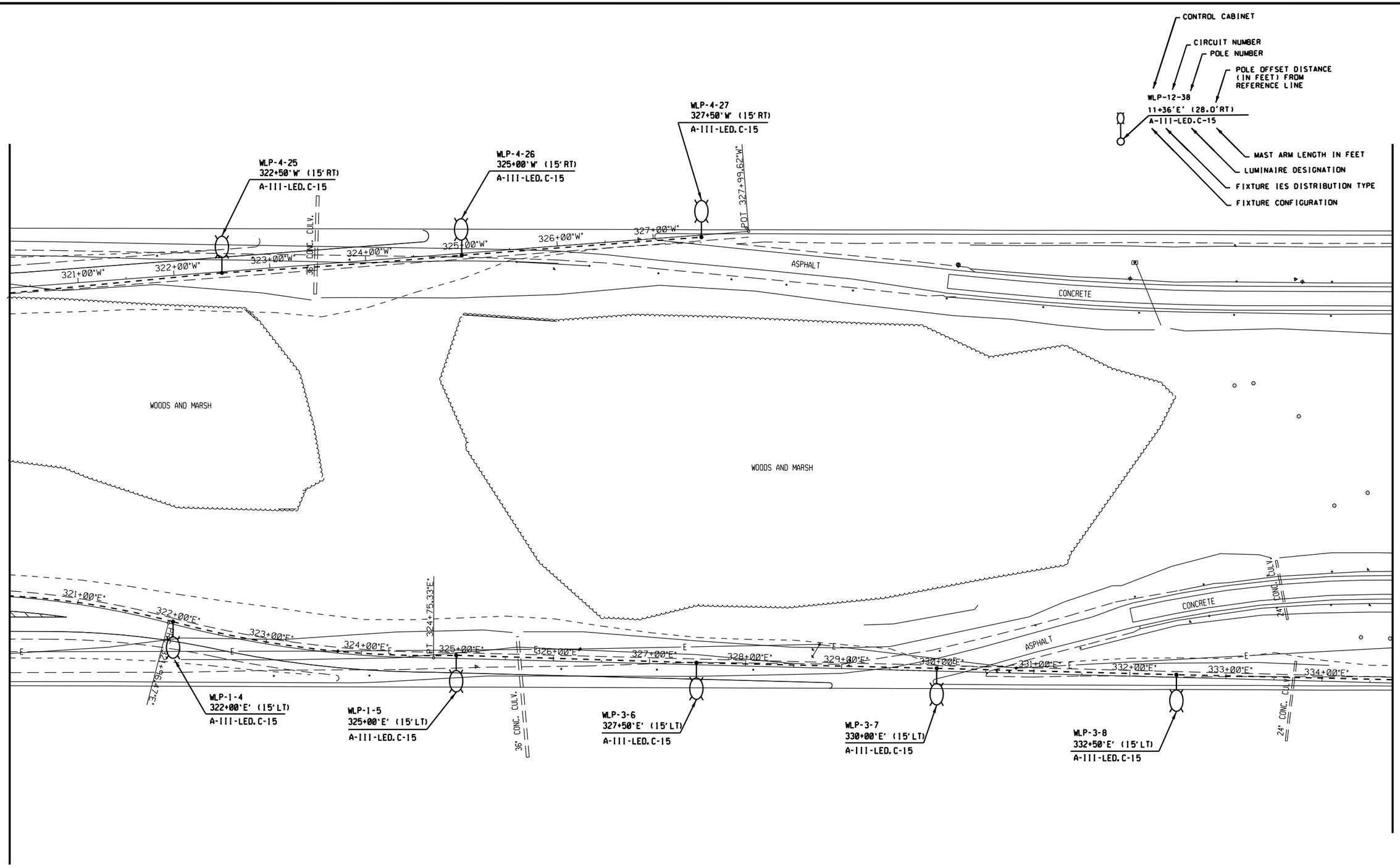
LEVELS ON • 2,3,4,5,6,7, 9,10,11,12,13,14,15,16,17, 20,21,22, 24, 26,27, 28,29,30,31,32,33,34,35,36,37, 41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61, 63

2

TO DRAWING E3

TO DRAWING E5

LEVELS ON • 2,3,4,5, 9,10,11,12,13,14,15,16,17,18, 20,21,22,23,24,25,26,27, 28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48, 49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



E4

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SITE - ELECTRICAL	SCALE:	SHEET	E

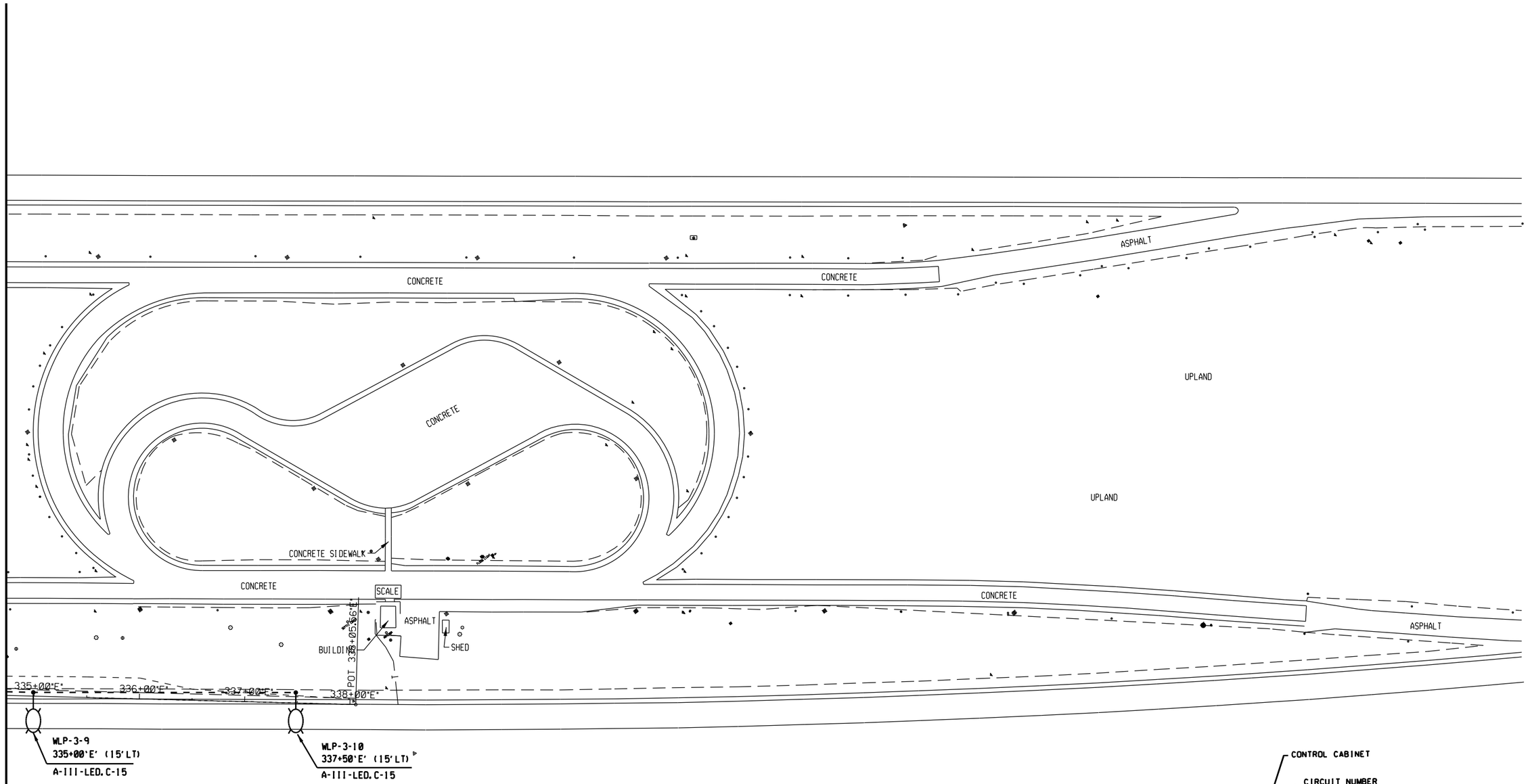
FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\023014_sl.dgn PLOT DATE : 20-FEB-2014 14:30 PLOT BY : dotres PLOT NAME : 023014 sl.dgn PLOT SCALE : 97.350837:1.000000

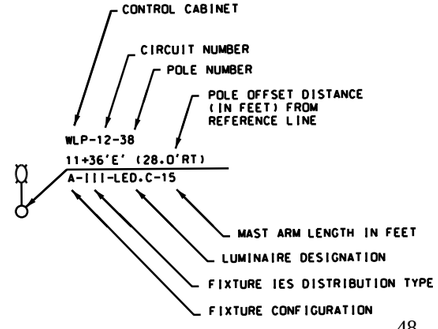
WISDOT/CADDS SHEET 42

2

TO DRAWING E4

LEVELS ON • 2,3,4,5, 10,11,12,13,14, 16,17,18, 20,21,22,23,24,25,26,27,28,29,30,31,32,33, 35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



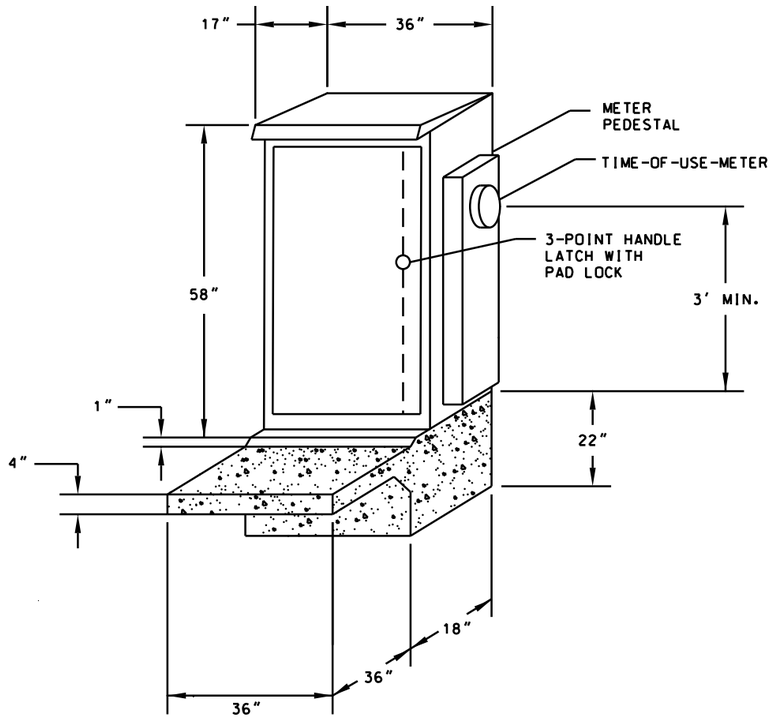


E5

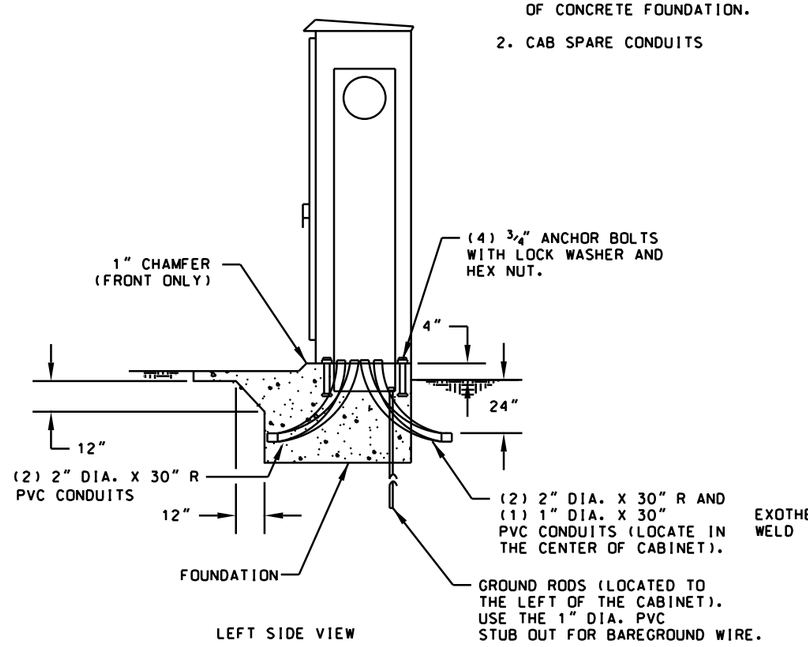
PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SITE - ELECTRICAL	SCALE:	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\023015_sl.dgn PLOT DATE : 20-FEB-2014 14:33 PLOT BY : dotres PLOT NAME : 023015 sl.dgn PLOT SCALE : 97.350837:1.000000

WISDOT/CADDS SHEET 42



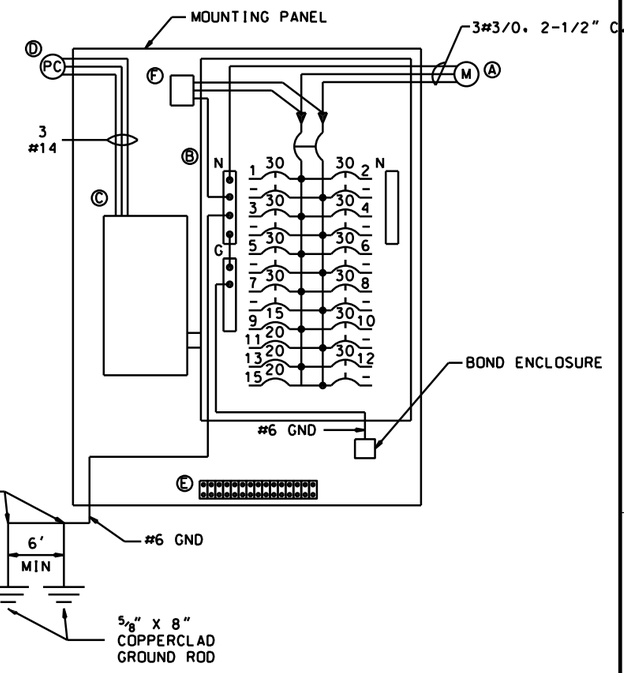
CABINET VIEW



SIDE VIEW

NOTES:

1. CONTRACTOR TO PROVIDE GRAVEL BASE AS REQUIRED FOR STRUCTURAL INTEGRITY OF CONCRETE FOUNDATION.
2. CAB SPARE CONDUITS



CONTROL DIAGRAM

LIGHTING CONTROL CABINET "WLP"

NOTES:

1. ALL CONTROL WIRING TO BE COLOR #14 AWG USE. UNLESS OTHERWISE NOTED.
2. ALL POWER AND CONTROL WIRING TO BE NEATLY LABELLED. TRAINED AND SUPPORTED.
3. THE CONTRACTOR SHALL COMPLY WITH UTILITY REQUIREMENTS.
4. PROVIDE #10 AWG WIRE FROM CIRCUIT BREAKERS (THROUGH CONTACTOR) AND #10 AWG GROUND WIRE FROM GROUND BUS AND #10 NEUTRAL WIRE FROM NEUTRAL BUS TO FIELD WIRING TERMINATION STRIP FOR EACH UNDERGROUND CABLE RUN. AS REQUIRED.
5. SEAL CONDUIT OPENINGS WITH DUCT SEAL.
6. ENCLOSURE SHALL BE GROUNDED.
7. THE ENCLOSURE AND METER PEDESTAL SHALL BE PAINTED TO MATCH LIGHTING UNITS.

EQUIPMENT

Ⓐ UTILITY APPROVED 0-200A, 1PH, 3W, 120/240V METER PEDESTAL.

Ⓑ 200A MCB, 120/240V, 1PH, 3W, 24 CKT. PANELBOARD WITH (10)30A/2P (LTG), (2) 20A/1P (WINCH ASSEMBLY) & (1)15A/1P (CONTROL) BOLT-ON BRANCH CIRCUIT BREAKERS, RATED 22K AIC (MIN).

Ⓒ TWO 30A, 12P, 300V ELECTRICALLY HELD CONTACTOR, WITH 120V CONTROL COIL, TWO WIRE INTERFACE RELAY AND HAND-OFF-AUTO SWITCH IN FACTORY ASSEMBLED NEMA 1 ENCLOSURE.

Ⓓ PHOTOCELL MOUNTED ON NORTH SIDE OF CABINET.

Ⓔ FIELD WIRING TERMINATION STRIP.

Ⓕ SURGE ARRESTOR.

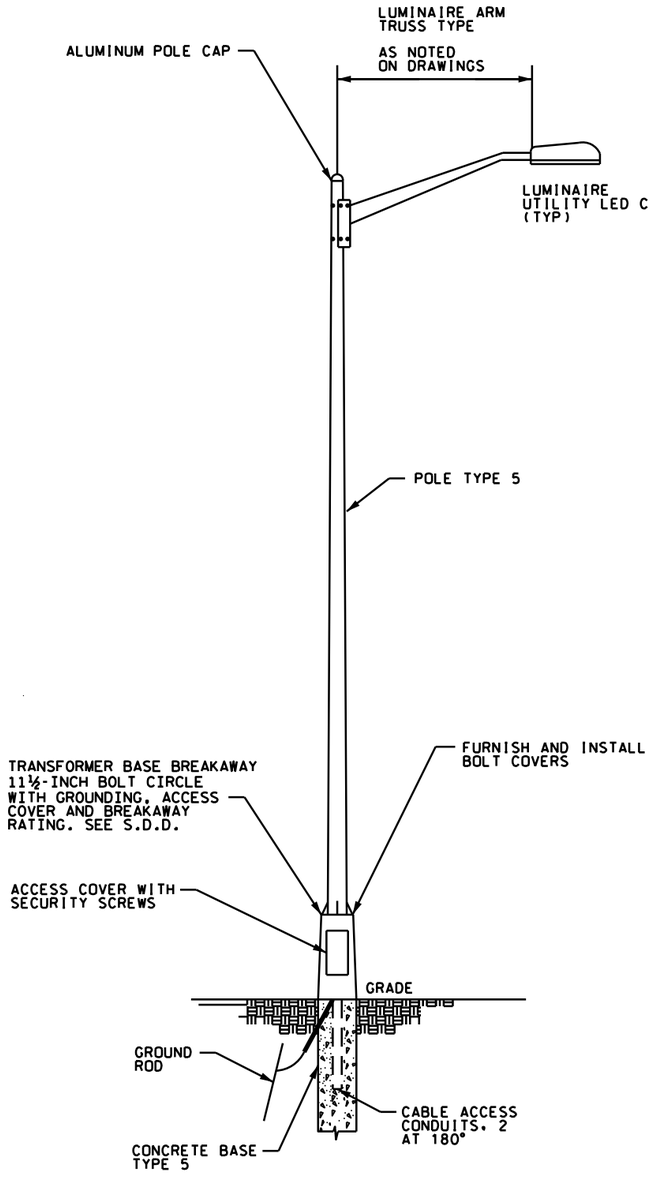
E6

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	LIGHTING DETAILS	SCALE:	SHEET	E

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,62,

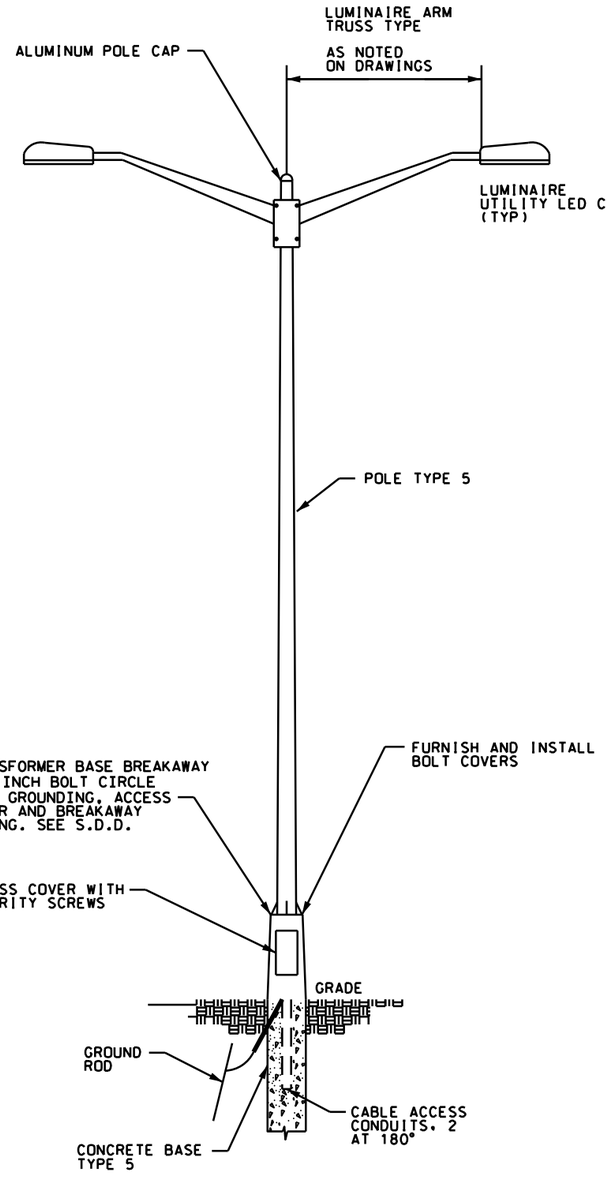
FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\023016_sl.dgn PLOT DATE :17-DEC-2013 17:19 PLOT BY : dotres PLOT NAME : 023016 sl.dgn PLOT SCALE :1.947059:1.000000

WISDOT/CADDS SHEET 42



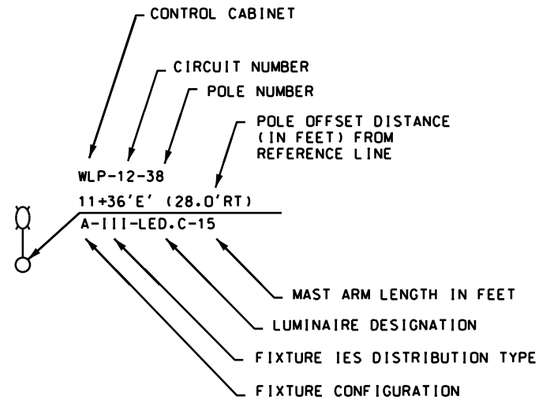
TYPE "A" LIGHT POLE & LUMINAIRE DETAIL

NTS



TYPE "B" LIGHT POLE & LUMINAIRE DETAIL

NTS



FIXTURE LEGEND

SITE LIGHTING FIXTURE CONFIGURATIONS

E7

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	LIGHTING DETAILS	SCALE:	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\023017_sl.dgn PLOT DATE : 20-FEB-2014 10:46 PLOT BY : dotres PLOT NAME : 023017 sl.dgn PLOT SCALE : 1.947059:1.000000

WISDOT/CADDS SHEET 42

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,62,63

ELECTRIC WIRE LIGHTING

LOCATION - LOCATION	655.0620 NO. 8 AWG L.F.	655.0625 NO. 6 AWG L.F.	655.0630 NO. 4 AWG L.F.
CONTROLLER - LPB1	200′	400′	
LPB1 - WLP-1-1	128′	256′	
WLP-1-1 - WLP-1-2	321′	642′	
WLP-1-2 - WLP-1-3	250′	500′	
WLP-1-3 - WLP-1-4	210′	420′	
WLP-1-4 - WLP-1-5	300′	600′	
WLP-1-5 - WLP-3-6	1539′		3078′
WLP-3-6 - WLP-3-7	250′		500′
WLP-3-7 - WLP-3-8	250′		500′
WLP-3-8 - WLP-3-9	250′		500′
WLP-3-9 - WLP-3-10	250′		500′
CONTROLLER - LPB1	200′	400′	
LPB1 - WLP-5-11	293′	586′	
WLP-5-11 - WLP-5-12	295′	590′	
WLP-5-12 - LPB2	100′	200′	
LPB2 - WLP-5-13	145′	290′	
LPB2 - WLP-5-14	142′	284′	
WLP-5-13 - LPB3	212′	424′	
LPB3 - WLP-5-15	69′	138′	
WLP-5-15 - WLP-7-16	248′	496′	
WLP-7-16 - WLP-7-17	250′	500′	
WLP-7-17 - WLP-7-18	250′	500′	
WLP-7-18 - WLP-7-19	250′	500′	
WLP-7-19 - WLP-7-20	230′	460′	
CONTROLLER - WLP-2-21	60′	120′	
CONTROLLER - LPB4	210′		420′
LPB4 - WLP-4-22	115′		230′
LPB4 - WLP-4-23	205′		410′
WLP-4-23 - WLP-4-24	270′		540′
WLP-4-24 - WLP-4-25	305′		610′
WLP-4-25 - WLP-4-26	310′		620′
WLP-4-26 - WLP-4-27	270′		540′
CONTROLLER - WLP-6-28	140′	280′	
WLP-6-28 - WLP6-2	255′	510′	
WLP-6-29 - WLP-6-30	240′	480′	
CONTROLLER - LPB5	2230′	4460′	
LPB5 - WLP-10-32	1190′		2380′
WLP-10-32 - WLP-10-33	242′		484′
WLP-10-33 - WLP-10-34	276′		552′
WLP-10-34 - WLP-10-35	252′		504′
WLP-10-35 - WLP-10-36	280′		560′
CONTROLLER - WLP-12-27	2507′		5014′
WLP-12-37 - WLP-12-38	248′		496′
WLP-12-28 - WLP-12-39	229′		458′
WLP-12-39 - WLP-12-40	273′		546′
UNDISTRIBUTED	461′	904′	8′
TOTALS	17,200	14,940	19,450

PULL BOXES

NO.	LOCATION	653.0135 PULL BOXES STEEL 24" X 36" EA
LPB1	314+00′E′ - 25′LT	1
LPB2	307+85′E′ - 53′RT	1
LPB3	304+35′E′ - 30′RT	1
LPB4	315+55′W′ - 10′RT	1
LPB5	305+20′W′ - 10′RT	1
TOTALS		5

LIGHTING CONTROL CABINET

NO.	LOCATION	SPV.0060.08 LIGHTING EA
WLP	1	1
TOTALS	1	1

ELECTRICAL SERVICE, METER BREAKER PEDESTAL

NO.	656.0200 LS
312+80.175′LT	1
TOTALS	1

PANEL: WLP

BUS AMPS:	200	MAIN:			MOUNTING:	NOTES:					
VOLTAGE:	120/240	CIRCUIT BREAKERS:			SURFACE:						
PHASE:	1	MAIN LUG ONLY:	X		FLUSH: X						
WIRE:	3	SUB-FEED LUGS:				AIC RATING:					
CIRCUIT DESCRIPTION	AMPS A	AMPS B	CB AMP	CKT	CKT	CB AMP	AMPS A	AMPS B	CIRCUIT DESCRIPTION		
SOUTHEAST LIGHTING	3.1		20	1	2	20			OPEN		
-		3.1	2	-	-	2		3.8	-		
SOUTHEAST LIGHTING	3.1		20	3	4	20	3.7		NORTHEAST LIGHTING		
-		3.1	2	-	-	2		3.7	-		
SOUTHWEST LIGHTING	3.1		20	5	6	20	3.8		NORTHWEST LIGHTING		
-		3.1	2	-	-	2		3.8	-		
SOUTHWEST LIGHTING	3		20	7	8	20			OPEN		
-			2	-	-	2		3.7	-		
LTG CONTROLLER	3.1		15	9	10	20	2.5		NORTHWEST LIGHTING		
120V MOTOR (WINCH)		5	20	11	-	2		2.5	-		
120V MOTOR (WINCH)	5		20	13	12	20			NORTHWEST LIGHTING		
					-	2			-		
SUB-TOTAL:	20.4	20.4			SUB-TOTAL:		13.7	21.2			
					TOTAL:		34.1	41.2			

E8

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,62,63

ELECTRICAL BASES, LIGHTING

NO.	LOCATION	654.0105 CONCRETE BASES TYPE 5 EACH
WLP-1-1	314+65 (EAST)	1
WLP-1-2	317+40 (EAST)	1
WLP-1-3	319+90 (EAST)	1
WLP-1-4	322+00 (EAST)	1
WLP-1-5	325+00 (EAST)	1
WLP-3-6	327+50 (EAST)	1
WLP-3-7	330+00 (EAST)	1
WLP-3-8	332+50 (EAST)	1
WLP-3-9	335+00 (EAST)	1
WLP-3-10	337+50 (EAST)	1
WLP-5-11	311+80 (EAST)	1
WLP-5-12	308+85 (EAST)	1
WLP-5-13	306+40 (EAST)	1
WLP-5-14	307+85 (EAST)	1
WLP-5-15	303+90 (EAST)	1
WLP-7-16	301+50 (EAST)	1
WLP-7-17	299+00 (EAST)	1
WLP-7-18	296+50 (EAST)	1
WLP-7-19	294+00 (EAST)	1
WLP-7-20	291+70 (EAST)	1
WLP-4-22	314+95 (WEST)	1
WLP-4-23	317+45 (WEST)	1
WLP-4-24	319+95 (WEST)	1
WLP-4-25	322+50 (WEST)	1
WLP-4-26	325+00 (WEST)	1
WLP-4-27	327+50 (WEST)	1
WLP-6-28	312+50 (WEST)	1
WLP-6-29	309+95 (WEST)	1
WLP-6-30	307+55 (WEST)	1
WLP-10-32	304+90 (WEST)	1
WLP-10-33	302+38 (WEST)	1
WLP-10-34	299+82 (WEST)	1
WLP-10-35	297+30 (WEST)	1
WLP-10-36	294+80 (WEST)	1
WLP-12-37	292+43 (WEST)	1
WLP-12-38	289+72 (WEST)	1
WLP-12-39	287+43 (WEST)	1
WLP-12-40	284+70 (WEST)	1
TOTALS		38

LIGHTING CONFIGURATION

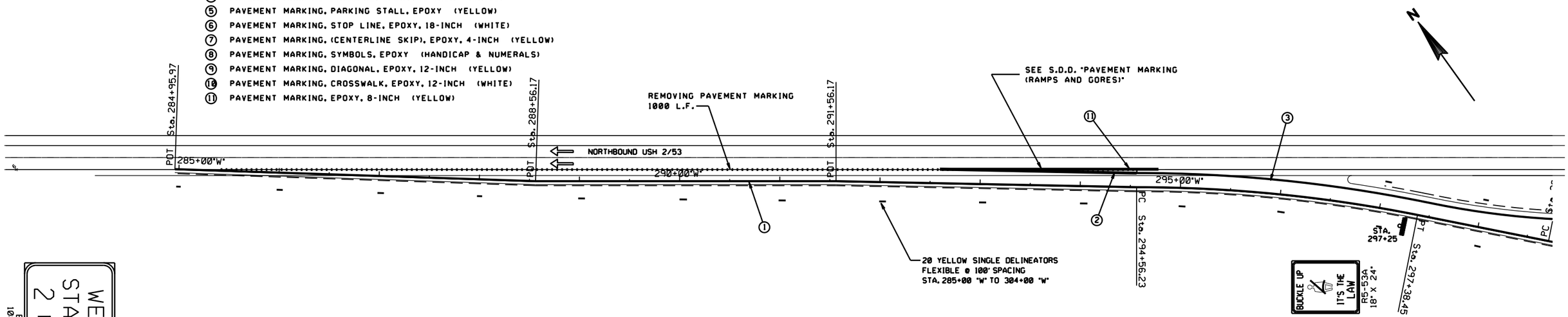
NO.	TYPE A LIGHTING UNITS EA	TYPE B LIGHTING UNITS EA
WLP-1-1 (EAST)	1	
WLP-1-2 (EAST)	1	
WLP-1-3 (EAST)	1	
WLP-1-4 (EAST)	1	
WLP-1-5 (EAST)	1	
WLP-3-6 (EAST)	1	
WLP-3-7 (EAST)	1	
WLP-3-8 (EAST)	1	
WLP-3-9 (EAST)	1	
WLP-3-10 (EAST)	1	
WLP-5-11 (EAST)	1	
WLP-5-12 (EAST)	1	
WLP-5-13 (EAST)	1	
WLP-5-14 (EAST)	1	
WLP-5-15 (EAST)	1	
WLP-7-16 (EAST)	1	
WLP-7-17 (EAST)	1	
WLP-7-18 (EAST)	1	
WLP-7-19 (EAST)	1	
WLP-7-20 (EAST)	1	
WLP-4-22 (WEST)	1	
WLP-4-23 (WEST)	1	
WLP-4-24 (WEST)	1	
WLP-4-25 (WEST)	1	
WLP-4-26 (WEST)	1	
WLP-4-27 (WEST)	1	
WLP-10-32 (WEST)	1	
WLP-10-33 (WEST)	1	
WLP-10-34 (WEST)	1	
WLP-10-35 (WEST)	1	
WLP-10-36 (WEST)	1	
WLP-12-37 (WEST)	1	
WLP-12-38 (WEST)	1	
WLP-12-39 (WEST)	1	
WLP-12-40 (WEST)	1	
WLP-6-28 (WEST)		1
WLP-6-29 (WEST)		1
WLP-6-30 (WEST)		1
TOTALS	35	3

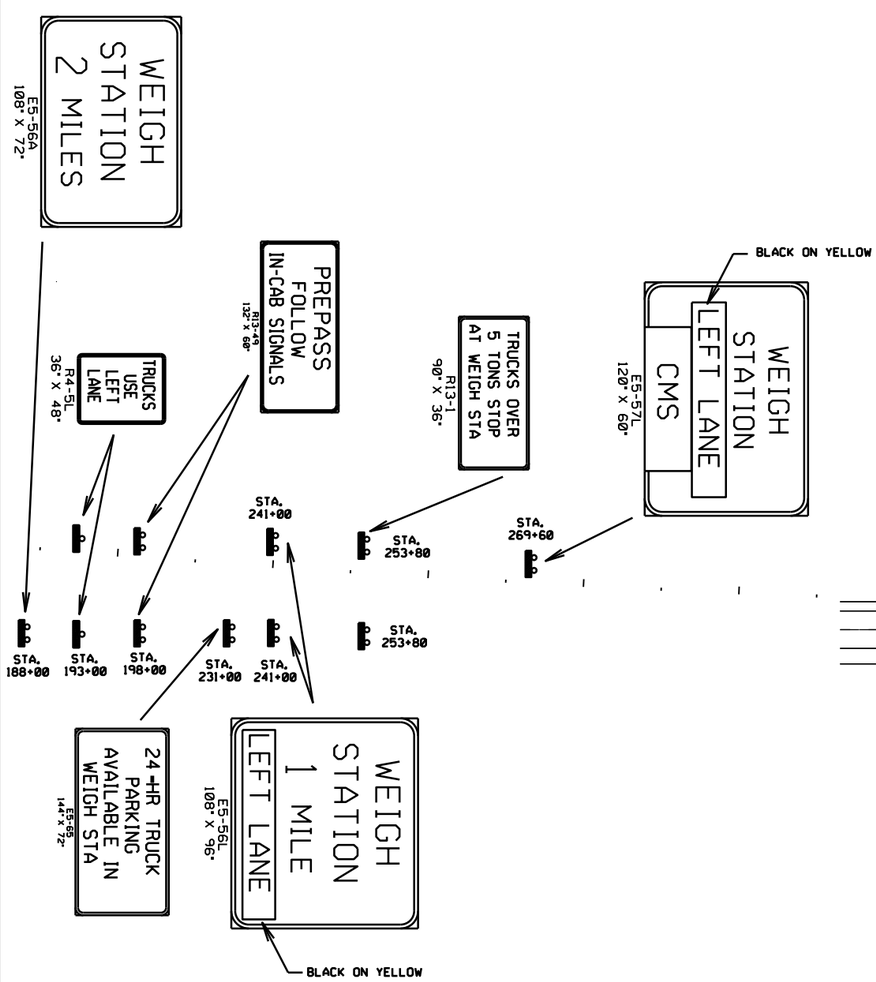
FOR INFORMATIONAL PURPOSES ONLY. SEE MISCELLANEOUS QUANTITIES FOR LIGHTING BID ITEMS.

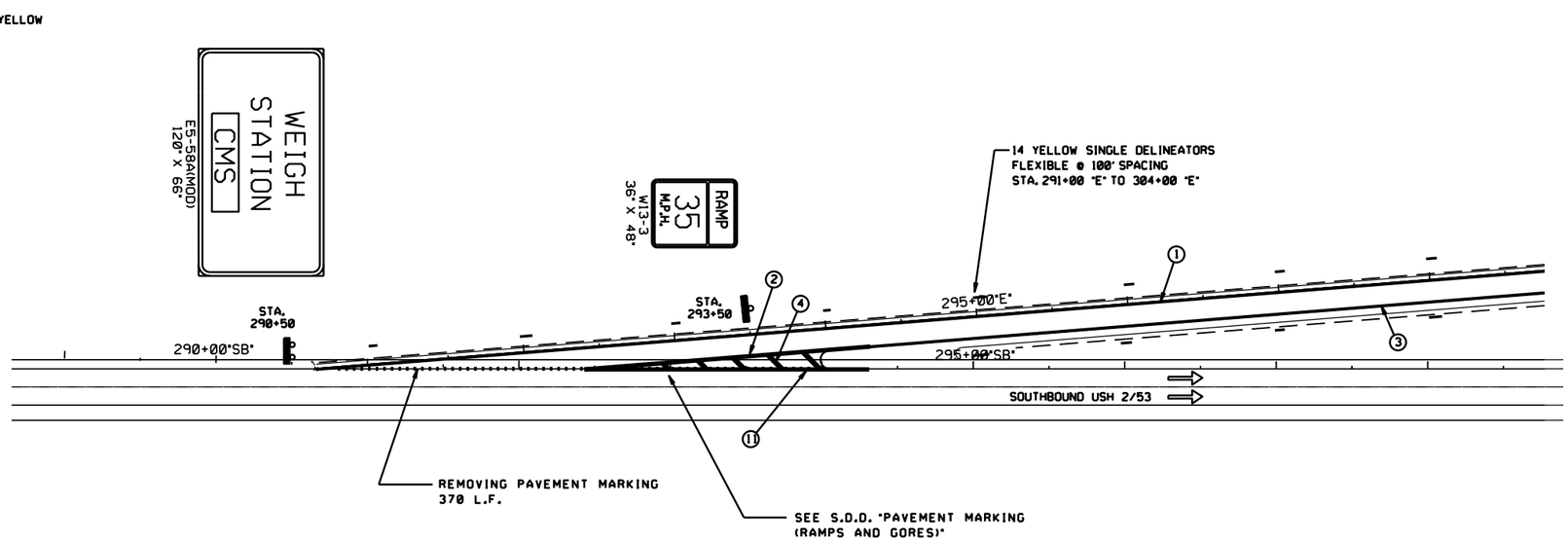
ELECTRICAL CONDUIT, LIGHTING

FROM	TO	652.0225 CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH L.F.
CONTROLLER	LPB1	200
LPB1	WLP-1-1	128
WLP-1-1	WLP-1-2	321
WLP-1-2	WLP-1-3	250
WLP-1-3	WLP-1-4	210
WLP-1-4	WLP-1-5	300
WLP-1-5	WLP-3-6	250
WLP-3-6	WLP-3-7	250
WLP-3-7	WLP-3-8	250
WLP-3-8	WLP-3-9	250
WLP-3-9	WLP-3-10	250
CONTROLLER	LPB1	200
LPB1	WLP-5-11	293
WLP-5-11	WLP-5-12	295
WLP-5-12	LPB2	100
LPB2	WLP-5-13	145
LPB2	WLP-5-14	142
WLP-5-13	LPB3	212
LPB3	WLP-5-15	69
WLP-5-15	WLP-7-16	248
WLP-7-16	WLP-7-17	250
WLP-7-17	WLP-7-18	250
WLP-7-18	WLP-7-19	250
WLP-7-19	WLP-7-20	230
CONTROLLER	LPB4	210
LPB4	WLP-4-22	115
LPB4	WLP-4-23	205
WLP-4-23	WLP-4-24	270
WLP-4-24	WLP-4-25	305
WLP-4-25	WLP-4-26	310
WLP-4-26	WLP-4-27	270
CONTROLLER	WLP-6-28	140
WLP-6-28	WLP-6-29	255
WLP-6-29	WLP-6-30	240
WLP-6-30	LPB5	235
LPB5	WLP-10-32	75
WLP-10-32	WLP-10-33	242
WLP-10-32	WLP-10-34	276
WLP-10-34	WLP-10-35	252
WLP-10-35	WLP-10-36	280
WLP-10-36	WLP-12-37	237
WLP-12-37	WLP-12-38	248
WLP-12-38	WLP-12-39	229
WLP-12-39	WLP-12-40	273
UNDISTRIBUTED		465
TOTALS		10.600

1. PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (YELLOW)
2. PAVEMENT MARKING, EPOXY, 8-INCH (WHITE)
3. PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (WHITE)
4. PAVEMENT MARKING DIAGONAL, EPOXY, 12-INCH (WHITE)
5. PAVEMENT MARKING, PARKING STALL, EPOXY (YELLOW)
6. PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)
7. PAVEMENT MARKING, (CENTERLINE SKIP), EPOXY, 4-INCH (YELLOW)
8. PAVEMENT MARKING, SYMBOLS, EPOXY (HANDICAP & NUMERALS)
9. PAVEMENT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
10. PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
11. PAVEMENT MARKING, EPOXY, 8-INCH (YELLOW)







LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT MARKING AND SIGNING	SCALE, FEET 0	SHEET NO: E

FILE NAME :W:\03 PavtRoad\SWEF-Projects\Superior-72\CAD Plans V8\024501pm.dgn JUL-2014 08:02 PLOT BY : dotres PLOT NAME : 024501pm.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1.000000
WISDOT/CADDS SHEET 42

1. PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (YELLOW)
2. PAVEMENT MARKING, EPOXY, 8-INCH (WHITE)
3. PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (WHITE)
4. PAVEMENT MARKING DIAGONAL, EPOXY, 12-INCH (WHITE)
5. PAVEMENT MARKING, PARKING STALL, EPOXY (YELLOW)
6. PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)
7. PAVEMENT MARKING, (CENTERLINE SKIP), EPOXY, 4-INCH (YELLOW)
8. PAVEMENT MARKING, SYMBOLS, EPOXY (YELLOW) (HANDICAP & NUMERALS)
9. PAVEMENT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
10. PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
11. PAVEMENT MARKING, EPOXY, 8-INCH (YELLOW)
12. PAVEMENT MARKING, CURB, EPOXY (YELLOW)

JV PANEL
WEST M3-4 24"X 12"
2 M1-4 24"X 24"
NORTH M3-1 24"X 12"
53 M1-4 24"X 24"
M 6-1 21"X 21"

W4-1L 48"x48"

26 WHITE SINGLE DELINEATORS FLEXIBLE @ 100' SPACING STA. 297+00 "W" TO 322+50 "W"

INSPECTION PARKING SPECIAL 72" X 32"

JV PANEL
TO M 4-5 21"X 12"
SCALE SPECIAL 24"X 12"
M 6-2 21"X 21"

9 YELLOW SINGLE DELINEATORS FLEXIBLE @ 100' SPACING STA. 305+50 "W" TO 312+50 "W"

JV PANEL
TO M 4-5 21"X 12"
SCALE SPECIAL 24"X 12"
M 6-1 21"X 21"

24" CONC CULV.

NORTHBOUND USH 2/53

NB 2/53

300+00"NB"
PC Sta. 298+71.82
PT Sta. 300+39.29
STA. 302+50
STA. 303+50
STA. 301+50
STA. 303+50
W4-2L 48"x48"
300+00"W"
305+00"W"
310+00"W"
50' TYP
STA. 306+00
304+80"W"
PTS Sta. 304+29.36
303+00"W"
307+00"I"
PTS Sta. 307+21.21
PCS Sta. 306+71.71
125'
15'
30'
6-INCH
5 WHITE DELINEATORS FLEXIBLE
STA. 313+60
ISLAND NOSE
PTS Sta. 313+69.49

13 WHITE SINGLE DELINEATORS FLEXIBLE @ 25' SPACING STA. 301+00 "N" TO 304+00 "N"

15 YELLOW SINGLE DELINEATORS FLEXIBLE @ 25' SPACING STA 303+25 "I" TO 307+00 "I"

R1-2 36" X 31"
YIELD
302+00"N"
303+00"N"
PCS Sta. 300+32.94
PRC 1.5°/100' R=3,820.08' L=83.18
PTS Sta. 305+22.63
305+00"I"
304+00"I"
STA. 303+75
STA. 304+90
305+00"E"

16 YELLOW SINGLE DELINEATORS FLEXIBLE @ 50' SPACING

85' (TYP)
17'
9 (TYP)
12
1 (TYP)
10
45°
18
6
5'
6'
10'
8
24'
5 4-INCH
18"
22"
STA. 310+82
STA. 310+62
STA. 306+75
STA. 313+00
310+00"E"
45°
50' TYP
20'
SCALE
11 OUTLINE SCALE DECK

SPECIAL 36" X 24"
DRUM SIGNAL USE FLASHING BEACON MOUNTING
STOP R1-1 30"x30"
SPECIAL 24" X 12"
SCALE

300+00"E"
STA. 302+50
STA. 302+50
STA. 306+75
300+00"SB"
305+00"SB"
310+00"SB"
SOUTHBOUND USH 2/53
SB 2/53

SPECIAL 36" X 42"
EXIT KEEP RIGHT
SPECIAL 42" X 42"
SCALE KEEP LEFT

TRUCKS 35 R2-2 36" X 36"

29 WHITE SINGLE DELINEATORS FLEXIBLE @ 100' SPACING STA. 295+00 "E" TO 323+00 "E"

JV PANEL
WEST M3-4 24"X 12"
2 M1-4 24"X 24"
NORTH M3-1 24"X 12"
53 M1-4 24"X 24"
M 6-2 21"X 21"

JV PANEL
EAST M3-2 24"X 12"
2 M1-4 24"X 24"
SOUTH M3-3 24"X 12"
53 M1-4 24"X 24"
M 6-1 21"X 21"

27"
8" 1 2 3 4 5

PAVEMENT MARKING SYMBOLS EPOXY
DETAILS

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT MARKING & SIGNING	SCALE: FEET 0	SHEET NO:	E

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50, 51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\024502_pm.dgn PLOT DATE : 08-APR-2014 16:20 PLOT BY : dotres PLOT NAME : 024502 pm.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1.000000

WISDOT/CADDS SHEET 42

2

① PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (YELLOW)
② PAVEMENT MARKING, EPOXY, 8-INCH (WHITE)
③ PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (WHITE)
④ PAVEMENT MARKING DIAGONAL, EPOXY, 12-INCH (WHITE)
⑤ PAVEMENT MARKING, PARKING STALL, EPOXY (YELLOW)
⑥ PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)
⑦ PAVEMENT MARKING, (CENTERLINE SKIP), EPOXY, 4-INCH (YELLOW)
⑧ PAVEMENT MARKING, SYMBOLS, EPOXY (HANDICAP)
⑨ PAVEMENT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
⑩ PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
⑪ PAVEMENT MARKING, EPOXY, 8-INCH (YELLOW)

N

TRUCKS 35 R2-2 36" X 36"

AHEAD 36" R1-2 X 31"

SCALE KEEP LEFT SPECIAL 42" X 42"

EXIT KEEP RIGHT SPECIAL 36" X 42"

NORTHBOUND USH 2/53

SEE S.D.D. "PAVEMENT MARKING (RAMPS AND GORES)"

REMOVING PAVEMENT MARKING 370 L.F.

PDT Sta. 327+99.

STA. 328+00

STA. 325+00

325+00"W"

320+00"W"

315+00"W"

STA. 315+10

STA. 314+95.00

50' TYP

PC Sta. 316+11.42

PT Sta. 317+70.81

STA. 317+00

STA. 315+50

STA. 316+00

315+00"S"

RAMP 35 M.P.H. W13-3 36" X 48"

WEIGH STATION CMS E5-58A(MOD) 120" X 66"

JV PANEL WEST M3-4 24" X 12"

2 M1-4 24" X 24"

NORTH M3-1 24" X 12"

53 M1-4 24" X 24"

M6-2 21" X 21"

13 YELLOW SINGLE DELINEATORS FLEXIBLE @ 100' SPACING STA. 315+50"W" TO 327+50"W"

12 WHITE SINGLE DELINEATORS FLEXIBLE @ 25' SPACING STA. 315+50"S" TO 318+25"S"

PCS Sta. 316+36.62

PTS Sta. 316+46.28

15'

25'

317+00"S"

318+00"S"

INSPECTION AND PARKING SPECIAL 60" X 54"

STA. 316+00"S"

STA. 317+50"S"

LEAKING TRUCK PARKING SPECIAL 36" X 30"

W4-2L 48"x48"

8 YELLOW SINGLE DELINEATORS FLEXIBLE @ 100' SPACING

STA. 314+65 315+00"E"

STA. 316+60

STA. 318+50

320+00"E"

50' TYP

BUCKLE UP IT'S THE LAW R5-53A 18" X 24"

STA. 322+75

SEE S.D.D. "PAVEMENT MARKING (RAMPS AND GORES)"

20 YELLOW SINGLE DELINEATORS FLEXIBLE @ 100' SPACING STA. 316+00"E" TO 335+00"E"

325+00"E"

325+00"SB"

315+00"SB"

320+00"SB"

STA. 320+50

SOUTHBOUND USH 2/53

REMOVING PAVEMENT MARKING 1000 L.F.

INSPECTION AND PARKING SPECIAL 60" X 54"

M6-1 21" X 21"

M1-4 24" X 24"

53 M3-3 24" X 12" SOUTH

M1-4 24" X 24"

2 M3-2 24" X 12" EAST

JV PANEL

W4-1L 48"x48"

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT MARKING & SIGNING	SCALE, FEET 0 50	SHEET NO:	E

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48, 49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\024503_pm.dgnPLOT DATE : 19-DEC-2013 11:40 PLOT BY : dotres PLOT NAME : 024503 pm.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1.000000

WISDOT/CADDS SHEET 42

1. PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (YELLOW)
2. PAVEMENT MARKING, EPOXY, 8-INCH (WHITE)
3. PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (WHITE)
4. PAVEMENT MARKING DIAGONAL, EPOXY, 12-INCH (WHITE)
5. PAVEMENT MARKING, PARKING STALL, EPOXY (YELLOW)
6. PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)
7. PAVEMENT MARKING, (CENTERLINE SKIP), EPOXY, 4-INCH (YELLOW)
8. PAVEMENT MARKING, SYMBOLS, EPOXY (HANDICAP & NUMERALS)
9. PAVEMENT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
10. PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
11. PAVEMENT MARKING, EPOXY, 8-INCH (YELLOW)

NORTHBOUND USH 2/53

STA. 358+00
STA. 378+00
STA. 358+00
STA. 378+00
STA. 348+90

WEIGH STATION
LEFT LANE
CMS
E5-57L
120" X 60"

BLACK ON YELLOW

TRUCKS OVER 5 TONS STOP AT WEIGH STA.
R13-1
90" X 36"

WEIGH STATION
1 MILE
LEFT LANE
E5-56L
108" X 96"

BLACK ON YELLOW

24-HR TRUCK PARKING AVAILABLE IN WEIGH STA
E5-65
144" X 72"

STA. 378+00

PREPASS FOLLOW IN-CAB SIGNALS
R13-4S
132" X 60"

STA. 378+00

NORTHBOUND USH 2/53

WEIGH STATION
2 MILES
E5-56A
108" X 72"

STA. 430+50

WESTBOUND USH 2

SOUTHBOUND USH 2/53

TRUCKS USE LEFT LANE
R4-5L
36" X 48"

STA. 424+00

STA. 430+50

NORTHBOUND USH 53

SOUTHBOUND USH 53

WEIGH STATION
2 MILES
E5-56A
108" X 72"

SOUTHBOUND USH 2/53

EXISTING 24" CULVERT PIPE

REMOVING PAVEMENT MARKING
1000 L.F.

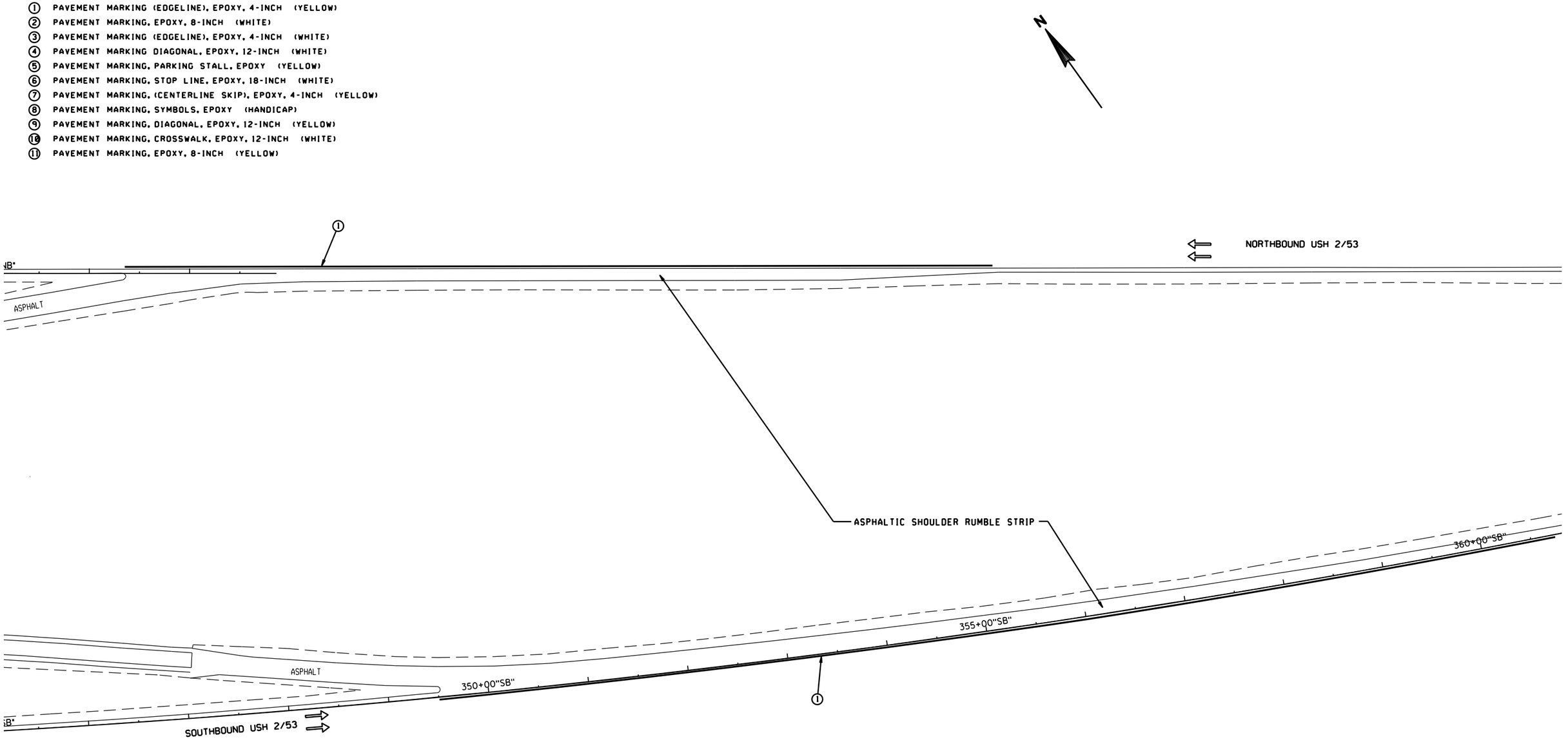
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT MARKING & SIGNING	SCALE, FEET 0	SHEET NO: E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :W:\03 PavtRoad\SWEF-Projects\Superior-72\CAD Plans V8\024504pm.dgn 08-JUL-2014 08:05 PLOT BY : dotres PLOT NAME : 024504 pm.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 97.352948:1.000000

WISDOT/CADDS SHEET 42

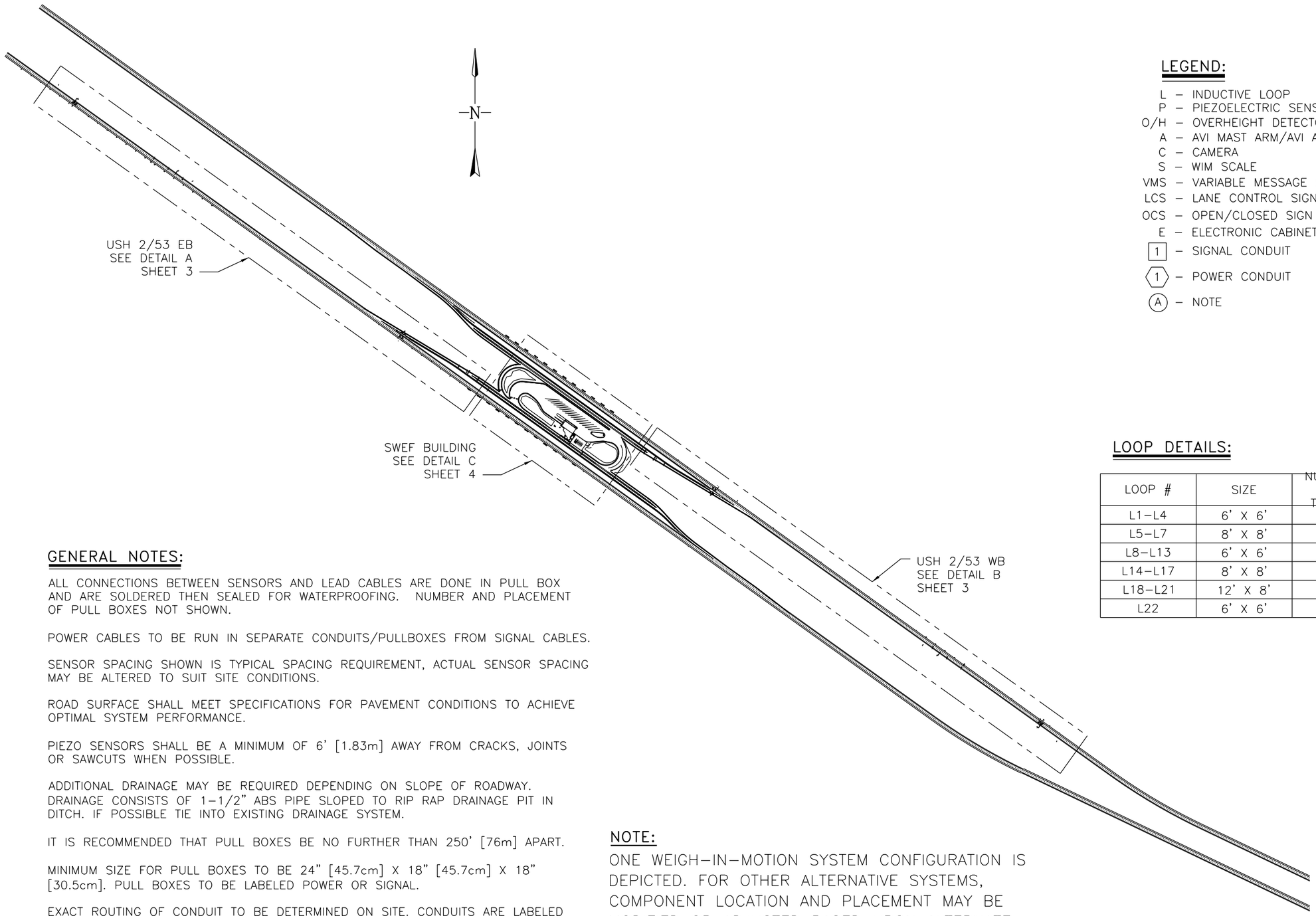
① PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (YELLOW)
② PAVEMENT MARKING, EPOXY, 8-INCH (WHITE)
③ PAVEMENT MARKING (EDGELINE), EPOXY, 4-INCH (WHITE)
④ PAVEMENT MARKING DIAGONAL, EPOXY, 12-INCH (WHITE)
⑤ PAVEMENT MARKING, PARKING STALL, EPOXY (YELLOW)
⑥ PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH (WHITE)
⑦ PAVEMENT MARKING, (CENTERLINE SKIP), EPOXY, 4-INCH (YELLOW)
⑧ PAVEMENT MARKING, SYMBOLS, EPOXY (HANDICAP)
⑨ PAVEMENT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)
⑩ PAVEMENT MARKING, CROSSWALK, EPOXY, 12-INCH (WHITE)
⑪ PAVEMENT MARKING, EPOXY, 8-INCH (YELLOW)



LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

STATE PROJECT NUMBER:1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	PAVEMENT MARKING & SIGNING	SCALE, FEET 0	SHEET NO:	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\024505_pm.dgnPLOT DATE :19-DEC-2013 16:35 PLOT BY : dotres PLOT NAME : 024505 pm.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE :97.352948:1.000000
WISDOT/CADDS SHEET 42



LEGEND:

L – INDUCTIVE LOOP
P – PIEZOELECTRIC SENSOR
O/H – OVERHEIGHT DETECTOR/EMITTER
A – AVI MAST ARM/AVI ANTENNA
C – CAMERA
S – WIM SCALE
VMS – VARIABLE MESSAGE SIGN
LCS – LANE CONTROL SIGNALS
OCS – OPEN/CLOSED SIGN
E – ELECTRONIC CABINET
[1] – SIGNAL CONDUIT
⟨1⟩ – POWER CONDUIT
(A) – NOTE

LOOP DETAILS:

LOOP #	SIZE	NUMBER OF TURNS	NOTE:
L1–L4	6' X 6'	4	PREFORMED LOOPS
L5–L7	8' X 8'	7	PREFORMED LOOPS
L8–L13	6' X 6'	4	PREFORMED LOOPS
L14–L17	8' X 8'	7	PREFORMED LOOPS
L18–L21	12' X 8'	7	PREFORMED LOOPS
L22	6' X 6'	4	PREFORMED LOOPS

GENERAL NOTES:

ALL CONNECTIONS BETWEEN SENSORS AND LEAD CABLES ARE DONE IN PULL BOX AND ARE SOLDERED THEN SEALED FOR WATERPROOFING. NUMBER AND PLACEMENT OF PULL BOXES NOT SHOWN.

POWER CABLES TO BE RUN IN SEPARATE CONDUITS/PULLBOXES FROM SIGNAL CABLES.

SENSOR SPACING SHOWN IS TYPICAL SPACING REQUIREMENT, ACTUAL SENSOR SPACING MAY BE ALTERED TO SUIT SITE CONDITIONS.

ROAD SURFACE SHALL MEET SPECIFICATIONS FOR PAVEMENT CONDITIONS TO ACHIEVE OPTIMAL SYSTEM PERFORMANCE.

PIEZO SENSORS SHALL BE A MINIMUM OF 6' [1.83m] AWAY FROM CRACKS, JOINTS OR SAWCUTS WHEN POSSIBLE.

ADDITIONAL DRAINAGE MAY BE REQUIRED DEPENDING ON SLOPE OF ROADWAY. DRAINAGE CONSISTS OF 1–1/2" ABS PIPE SLOPED TO RIP RAP DRAINAGE PIT IN DITCH. IF POSSIBLE TIE INTO EXISTING DRAINAGE SYSTEM.

IT IS RECOMMENDED THAT PULL BOXES BE NO FURTHER THAN 250' [76m] APART.

MINIMUM SIZE FOR PULL BOXES TO BE 24" [45.7cm] X 18" [45.7cm] X 18" [30.5cm]. PULL BOXES TO BE LABELED POWER OR SIGNAL.

EXACT ROUTING OF CONDUIT TO BE DETERMINED ON SITE. CONDUITS ARE LABELED LEFT TO RIGHT, TOP TO BOTTOM.

DRAWING NOT TO SCALE.

NOTE:

ONE WEIGH–IN–MOTION SYSTEM CONFIGURATION IS DEPICTED. FOR OTHER ALTERNATIVE SYSTEMS, COMPONENT LOCATION AND PLACEMENT MAY BE MODIFIED OR ADJUSTED BASED UPON ALTERNATE SYSTEM REQUIREMENTS AND FIELD CONDITIONS.

SIGNAL CONDUITS:

[1] 1" CONDUIT
1–2C 14AWG (LOOP LEAD)

[2] 1" CONDUIT
1– RG58 COAXIAL CABLE (PIEZO LEAD)

[3] 2" CONDUIT
(SUPPLIED BY OTHERS)

[4] 2" CONDUIT
2–12 STRAND MULTIMODE FIBER OPTIC CABLE

[5] 2" CONDUIT
1–2C 14AWG (LOOP LEAD)

[6] 2" CONDUIT
2–2C 14AWG (LOOP LEAD)

[7] 2" CONDUIT
3–2C 14AWG (LOOP LEAD)

[8] 2" CONDUIT
1–12 STRAND MULTIMODE FIBER OPTIC CABLE (COM)

[9] 2" CONDUIT
1–12 STRAND MULTIMODE FIBER OPTIC CABLE (CAMERA)

[10] 2" CONDUIT
1–12 STRAND MULTIMODE FIBER OPTIC CABLE (VMS COM)

[11] 2" CONDUIT
3–2C 14AWG (LOOP LEAD)

[12] 2" CONDUIT
4–2C 14AWG (LOOP LEAD)

[13] 2" CONDUIT
2–2C 14AWG (LOOP LEAD)

[14] 2" CONDUIT
2–3PR 20AWG (WIM LEAD)
4–2C 18AWG (OFF–SCALE LEAD)

[15] 2" CONDUIT
2–2C 14AWG (LOOP LEAD)
2– RG58 COAXIAL CABLE (PIEZO LEAD)

[16] 2" CONDUIT
1– TBD (AVI COM)

[17] 2" CONDUIT
7–2C 14AWG (LOOP LEAD)
3– RG58 COAXIAL CABLE (PIEZO LEAD)

[18] 2" CONDUIT
SPARE

[19] 2" CONDUIT
4–2C 14AWG (LOOP LEAD)
4– RG58 COAXIAL CABLE (PIEZO LEAD)

[20] 2" CONDUIT
10–2C 14AWG (LOOP LEAD)
5– RG58 COAXIAL CABLE (PIEZO LEAD)

[21] 1" CONDUIT
1–2C 18AWG (OVERHEIGHT SIGNAL)

POWER CONDUITS:

⟨1⟩ 2" CONDUIT
1–4C + GND 14AWG (OCS POWER AND SIGNAL)

⟨2⟩ 2" CONDUIT
2–4C + GND 12AWG (CMS1 AND 2 POWER AND SIGNAL)
1–2C + GND 10AWG (CAMERA AND ILLUMINATOR POWER)

⟨3⟩ 2" CONDUIT
1–2C + GND 10AWG (CAMERA AND ILLUMINATOR POWER)

⟨4⟩ 2" CONDUIT
1–4C + GND 12AWG (CMS1 POWER AND SIGNAL)

⟨5⟩ 2" CONDUIT
1–4C + GND 12AWG (CMS2 POWER AND SIGNAL)

⟨6⟩ 2" CONDUIT
1–4C + GND 14AWG (CMS3 POWER AND SIGNAL)

⟨7⟩ 2" CONDUIT
1–2C + GND 14AWG (VMS POWER)

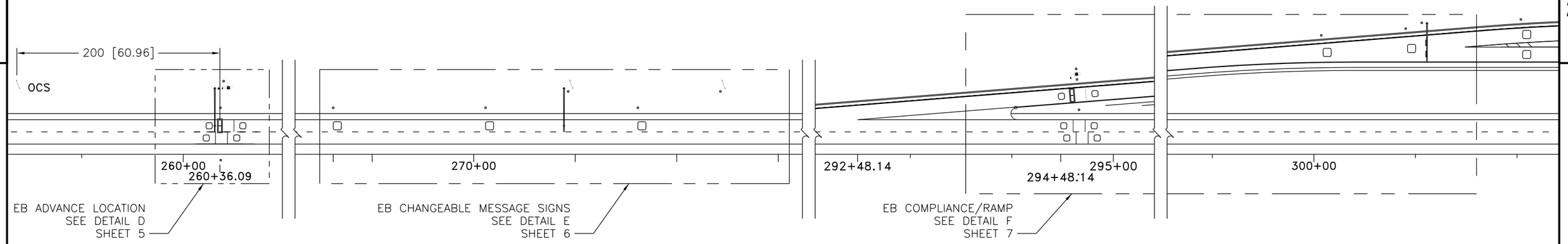
⟨8⟩ 2" CONDUIT
TBD (RAMP CABINET)

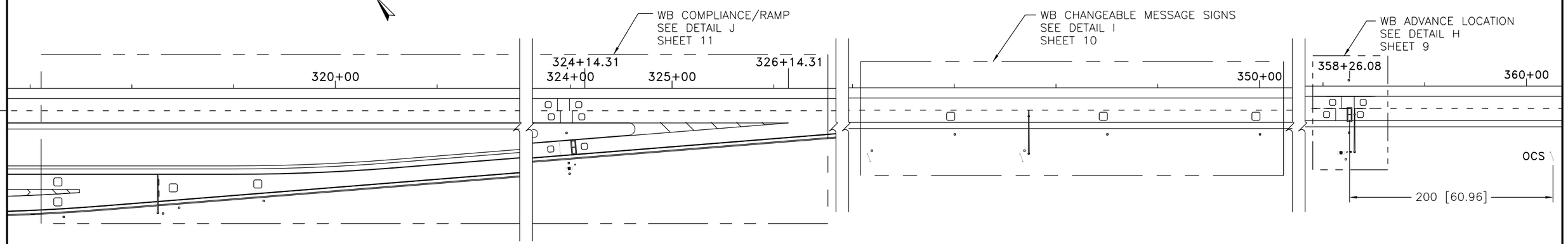
⟨9⟩ 2" CONDUIT
2–3C + GND (LCS POWER)

⟨10⟩ 2" CONDUIT
TBD (MAINLINE CABINET POWER)

⟨11⟩ 2" CONDUIT
1–2C + GND 12 AWG (OVERHEIGHT)

DETAIL A – USH 2/53 EB





DETAIL B – USH 2/53 WB

NOTE:

ONE WEIGH–IN–MOTION SYSTEM CONFIGURATION IS DEPICTED. FOR OTHER ALTERNATIVE SYSTEMS, COMPONENT LOCATION AND PLACEMENT MAY BE MODIFIED OR ADJUSTED BASED UPON ALTERNATE SYSTEM REQUIREMENTS AND FIELD CONDITIONS.

PROJECT NO: 1190-43-71	HWY: SUPERIOR SWEF	COUNTY: DOUGLAS	SITE LAYOUT - WIM / PRE-PASS / STATIC SCALE	SHEET	E

60 3

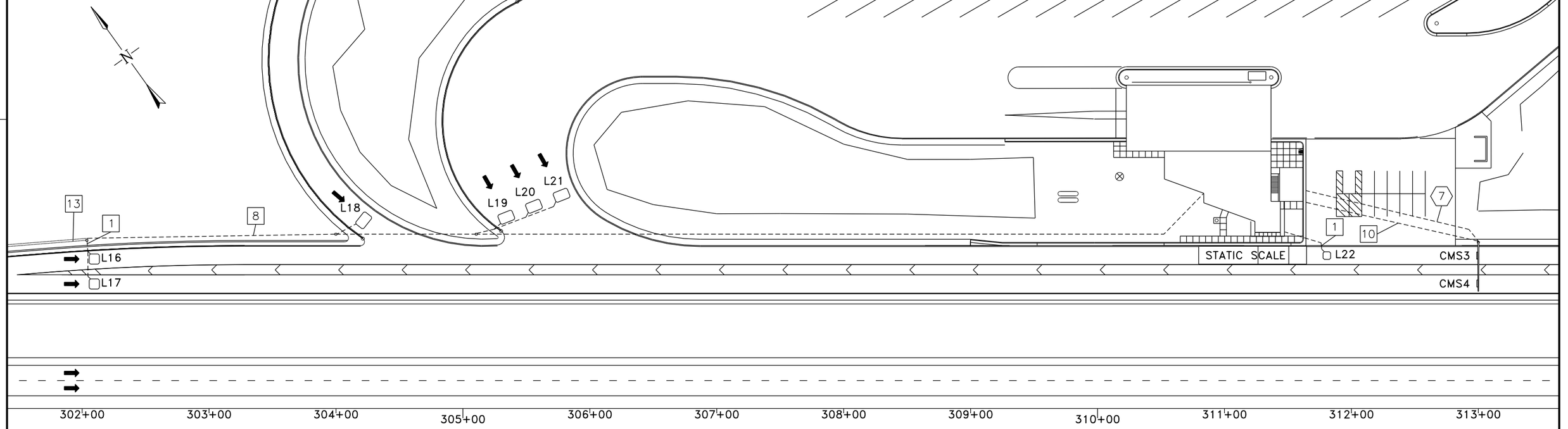
FILE NAME : MWIMLS06 PLOT DATE : PLOT BY : PLOT NAME : MWIMLS06-3 PLOT SCALE :

2

DETAIL C

2

302+00 303+00 304+00 305+00 306+00 307+00 308+00 309+00 310+00 311+00 312+00 313+00

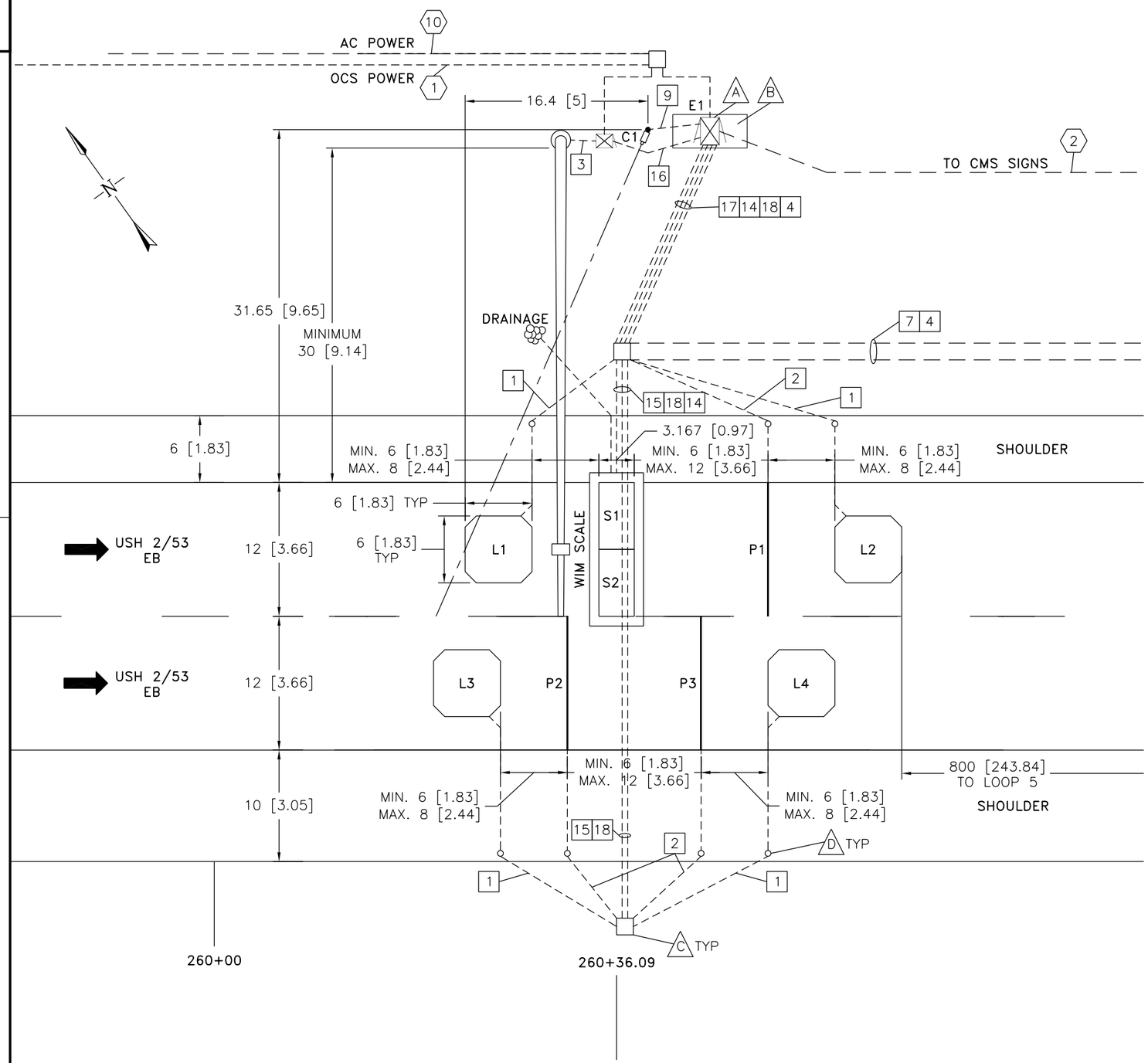


302+00 303+00 304+00 305+00 306+00 307+00 308+00 309+00 310+00 311+00 312+00 313+00

PROJECT NO: 1190-43-71	HWY: SUPERIOR SWEF	COUNTY: DOUGLAS	SITE LAYOUT - WIM / PRE-PASS / STATIC SCALE	SHEET	E

FILE NAME : MWIMLS06 PLOT DATE : PLOT BY : PLOT NAME : **MSWIMLS06-4** PLOT SCALE :

DETAIL D – ADVANCE LOCATION



NOTES: (THIS SHEET ONLY)

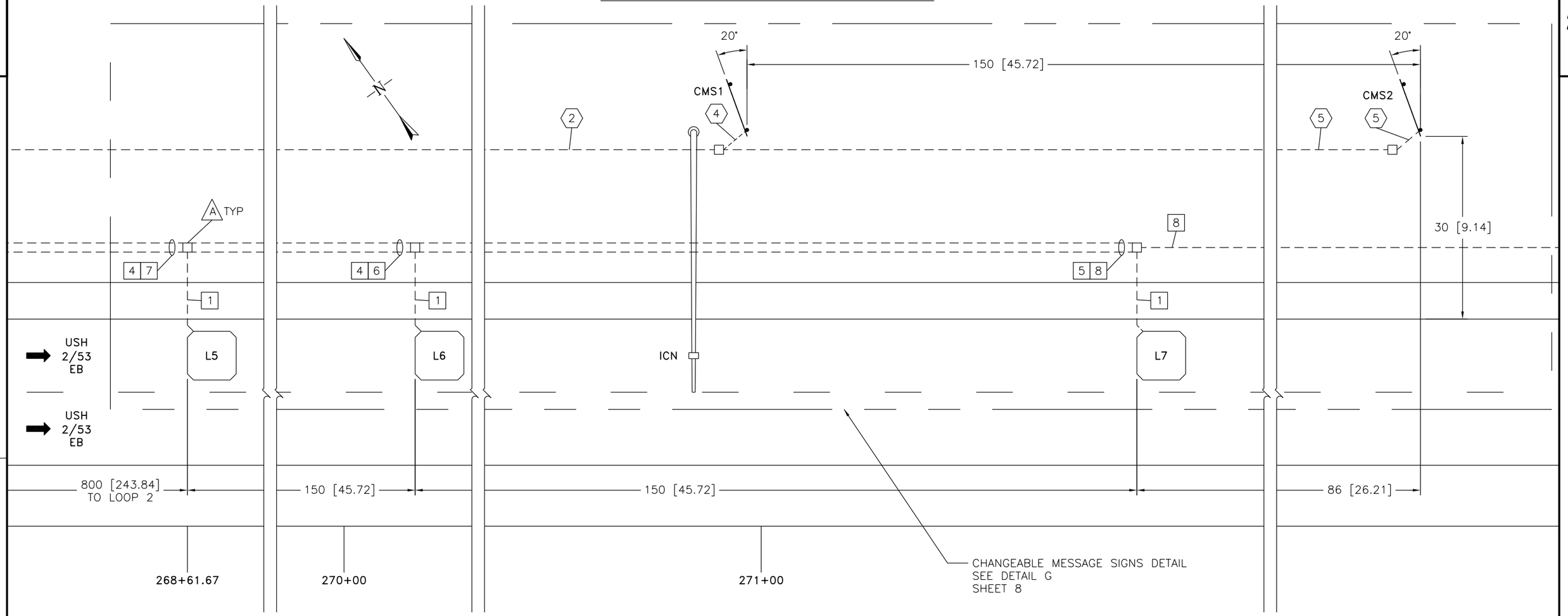
A. CABINET WITH WIM ELECTRONICS.

B. CABINET BASE.

C. PULL BOX.

D. DRILL THROUGH SHOULDER FOR CONDUIT.

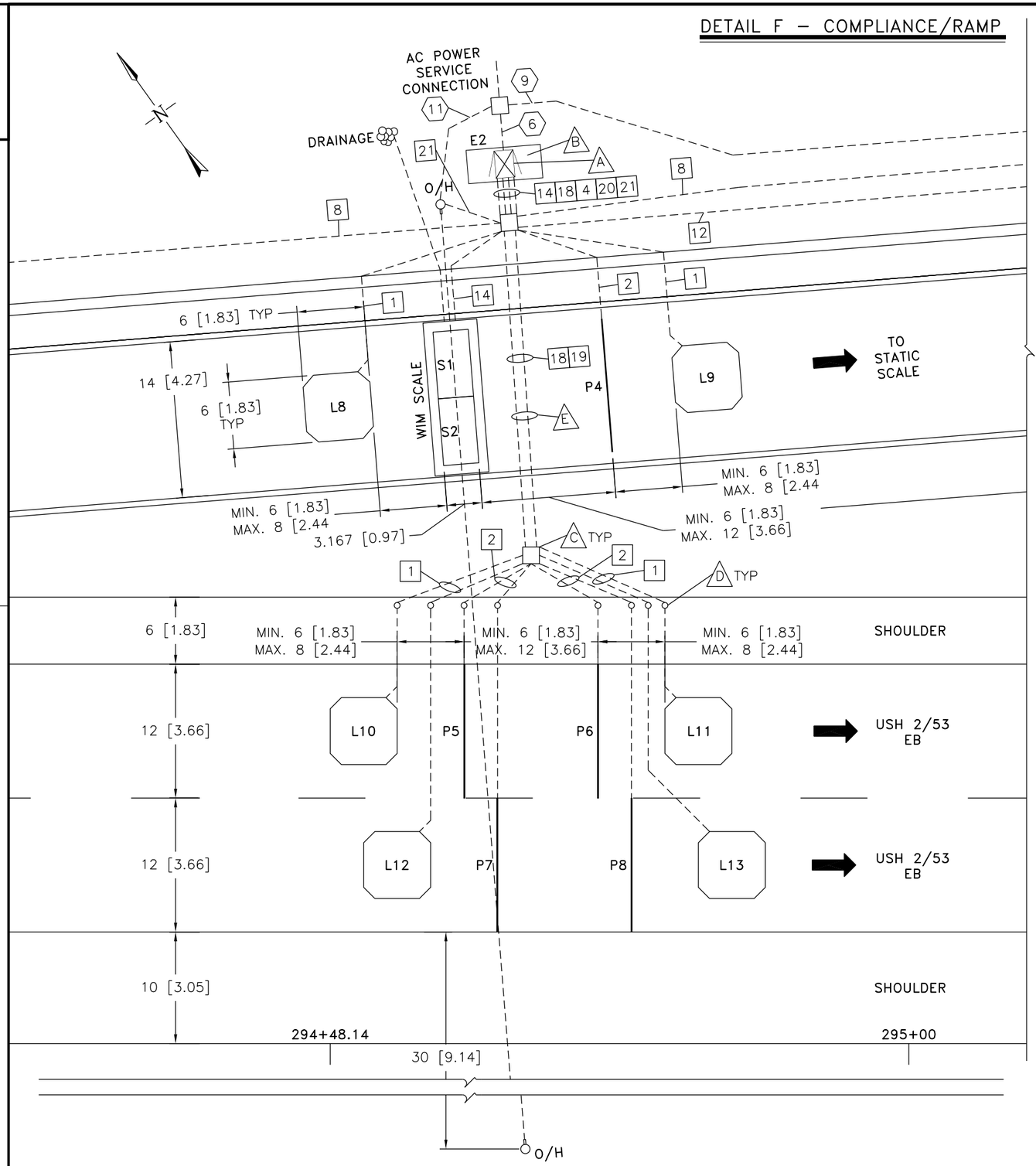
DETAIL E – CHANGEABLE MESSAGE SIGNS

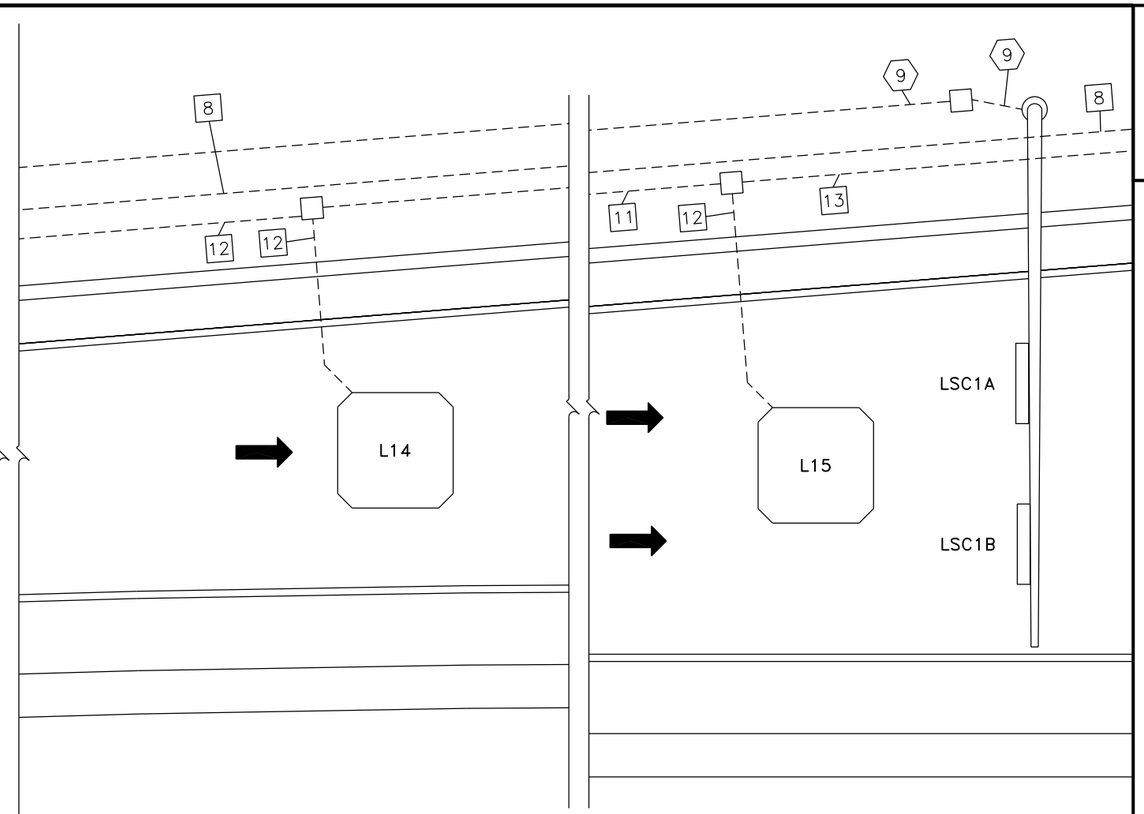


NOTES: (THIS SHEET ONLY)

A PULL BOX.

DETAIL F – COMPLIANCE/RAMP

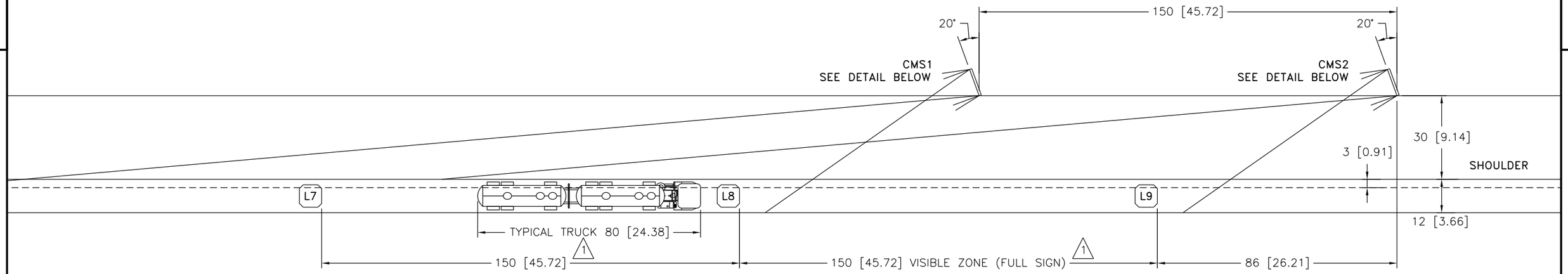




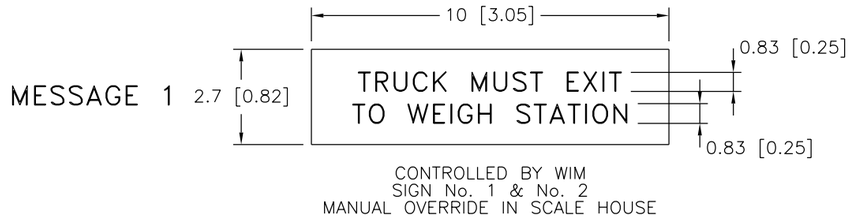
NOTES: (THIS SHEET ONLY)

A. CABINET WITH WIM ELECTRONICS.
B. CABINET BASE.
C. PULL BOX.
D. DRILL THROUGH SHOULDER FOR CONDUIT.
E. BORE UNDER ROADWAY.

DETAIL G – CHANGEABLE MESSAGE SIGNS DETAIL



CMS SIGN DETAIL



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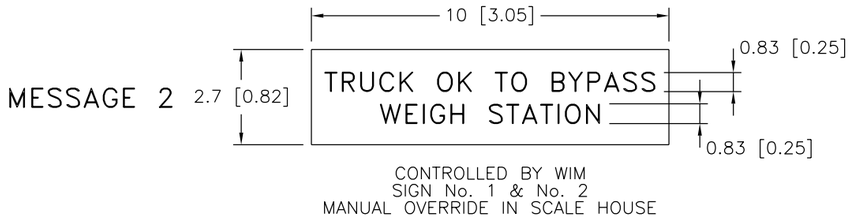
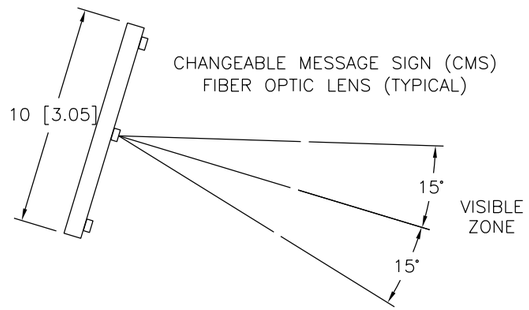
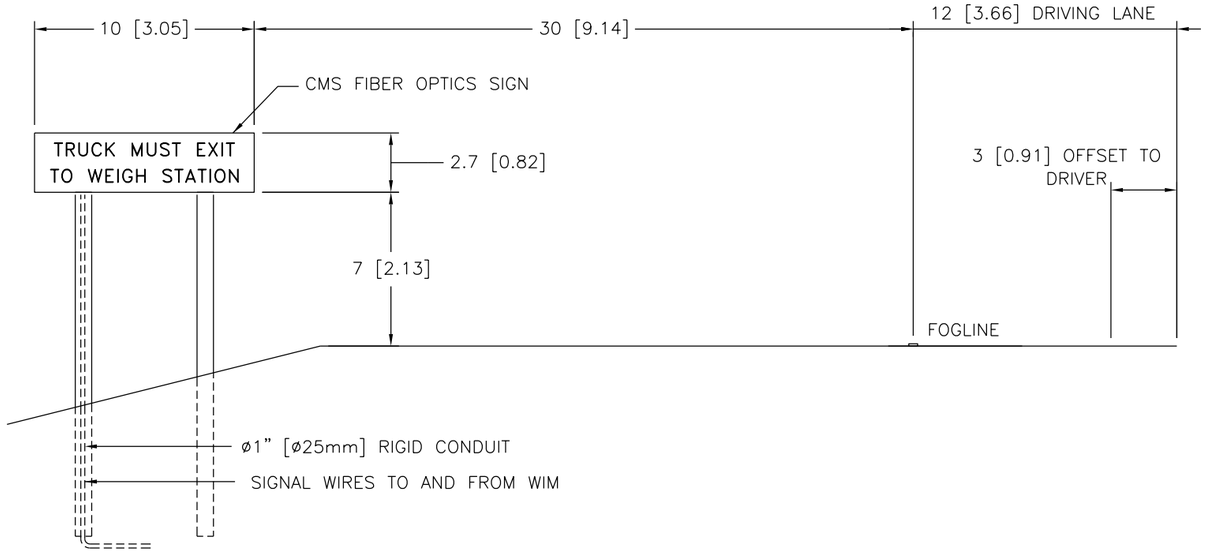




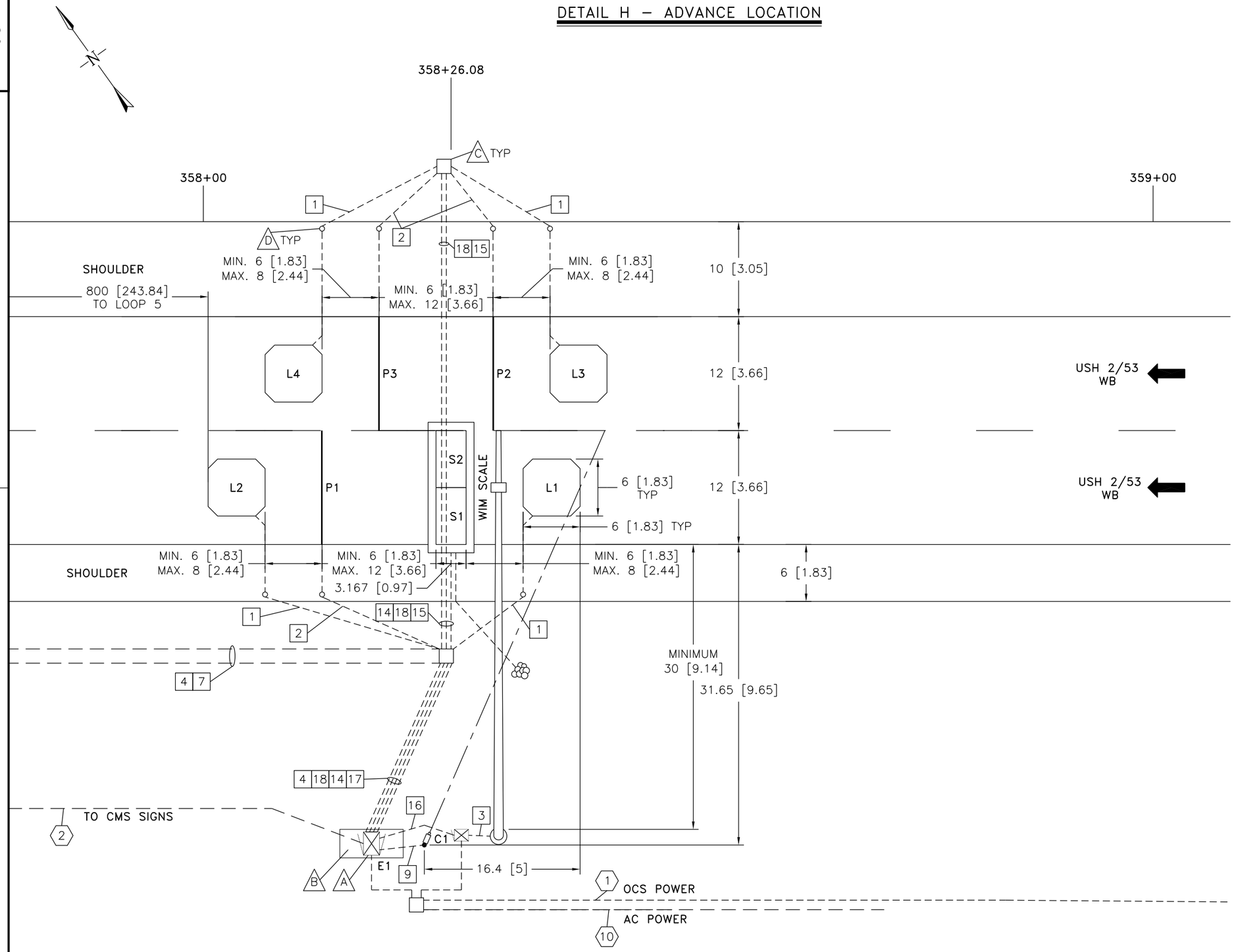
SIGN GEOMETRY



PROJECT NO: 1190-43-71	HWY: SUPERIOR SWEF	COUNTY: DOUGLAS	SITE LAYOUT - WIM / PRE-PASS / STATIC SCALE	SHEET	E

FILE NAME : MWIMLS06 PLOT DATE : PLOT BY : PLOT NAME : MWIMSL06-8 PLOT SCALE :
WISDOT/CADDS SHEET 42

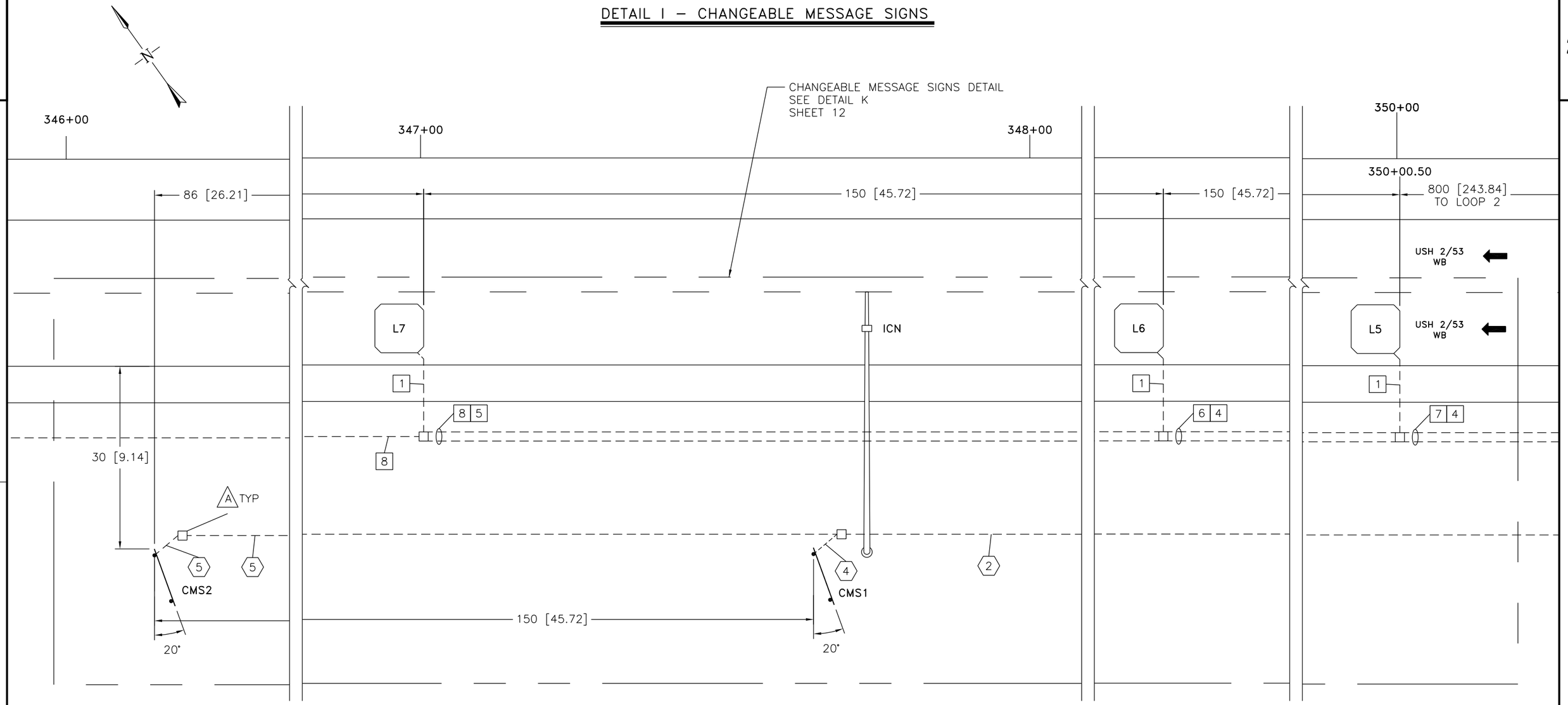
DETAIL H – ADVANCE LOCATION



NOTES: (THIS SHEET ONLY)

A. CABINET WITH WIM ELECTRONICS.
B. CABINET BASE.
C. PULL BOX.
D. DRILL THROUGH SHOULDER FOR CONDUIT.

DETAIL I – CHANGEABLE MESSAGE SIGNS



NOTES: (THIS SHEET ONLY)

A PULL BOX.

2

DETAIL J – COMPLIANCE/RAMP

NOTES: (THIS SHEET ONLY)

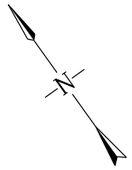
A CABINET WITH WIM ELECTRONICS.

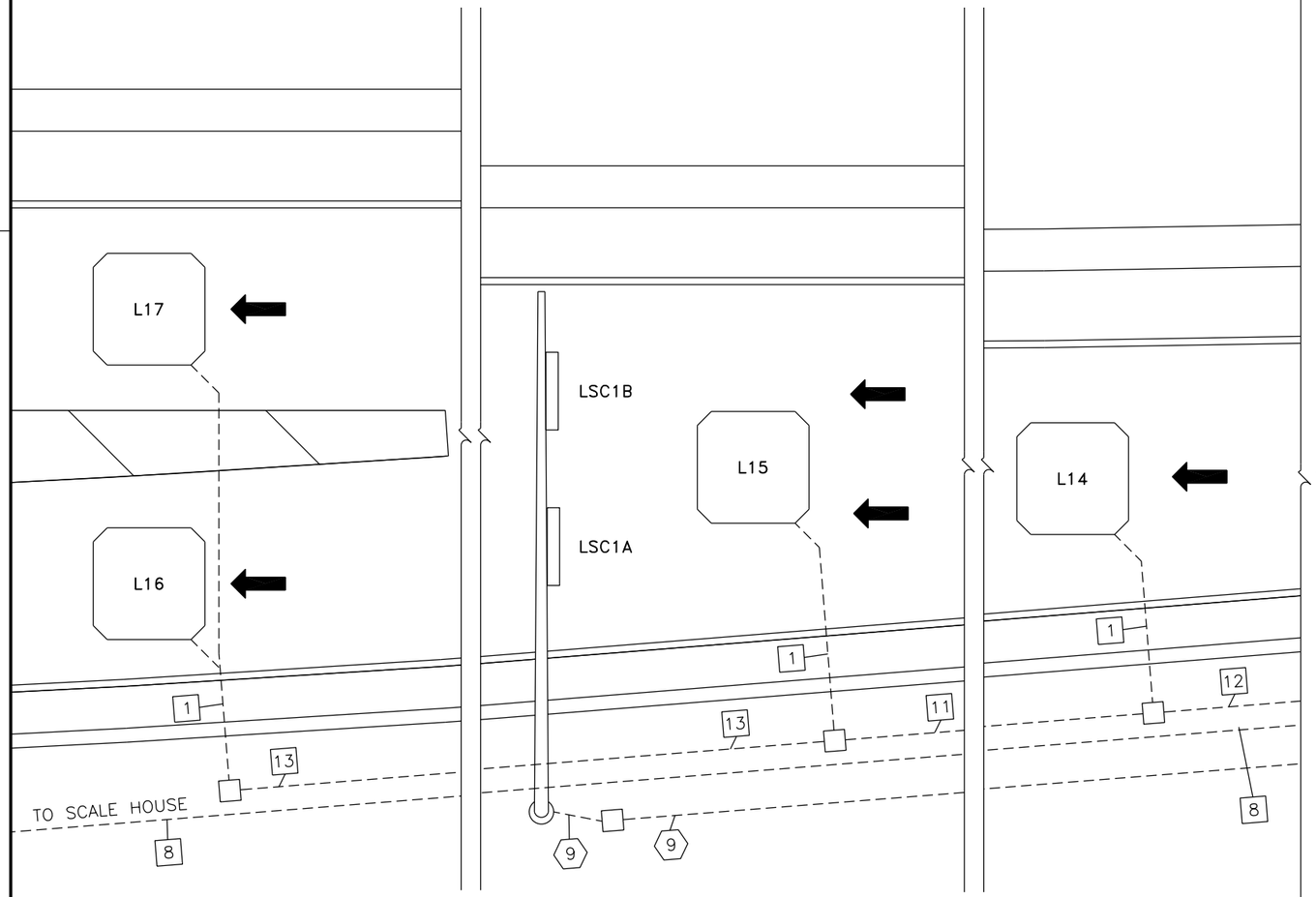
B CABINET BASE.

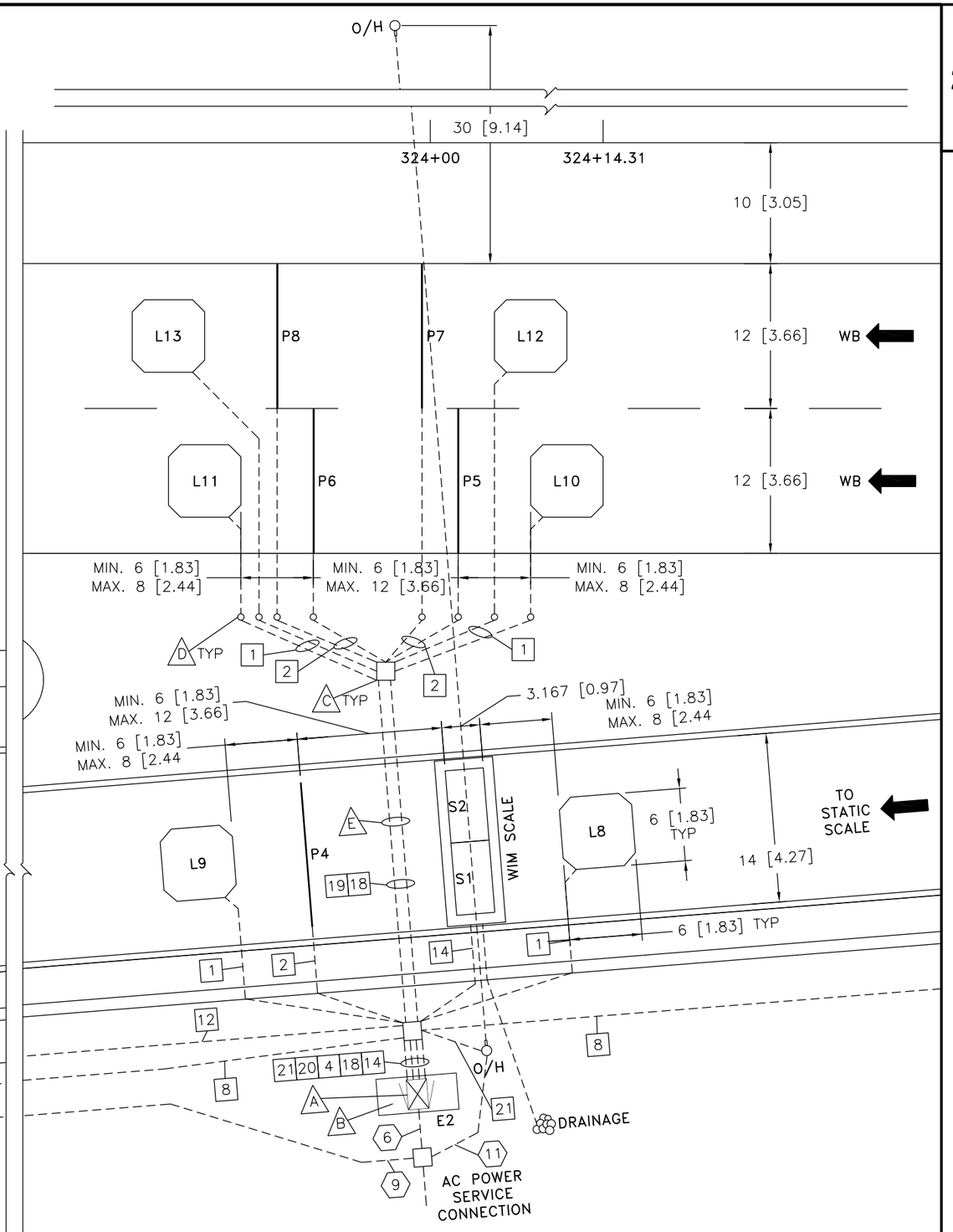
C PULL BOX.

D DRILL THROUGH SHOULDER FOR CONDUIT.

E BORE UNDER ROADWAY.



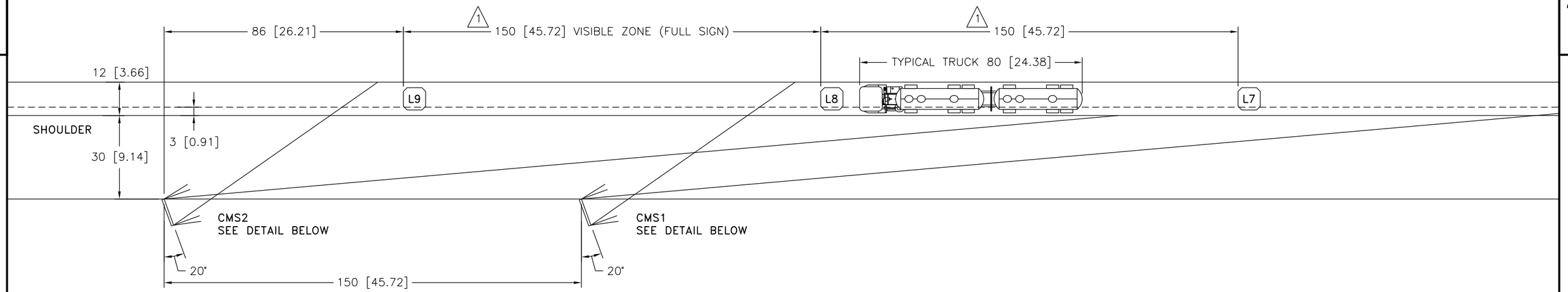




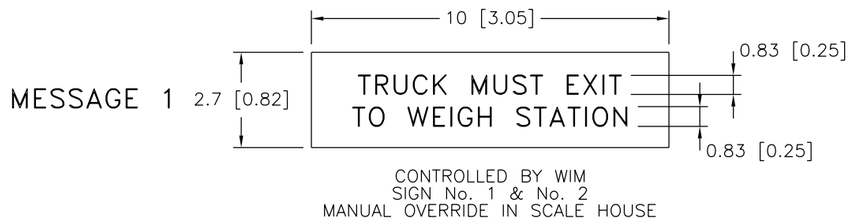
PROJECT NO: 1190-43-71	HWY: SUPERIOR SWEF	COUNTY: DOUGLAS	SITE LAYOUT - WIM / PRE-PASS / STATIC SCALE	SHEET	E

FILE NAME : MWIMLS06 PLOT DATE : PLOT BY : PLOT NAME : MWIMLS06-11 PLOT SCALE :

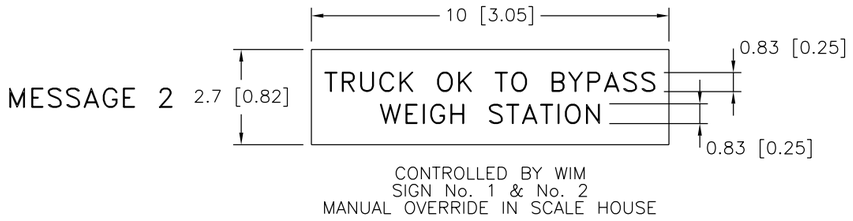
DETAIL K – CHANGEABLE MESSAGE SIGNS DETAIL

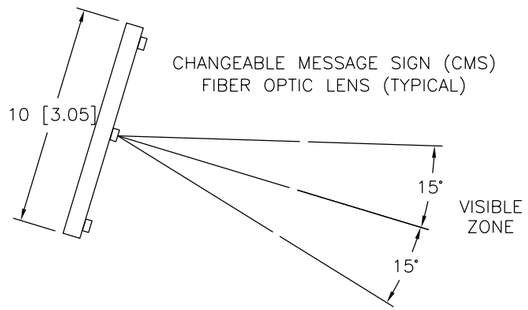


DETAIL B – SIGNS

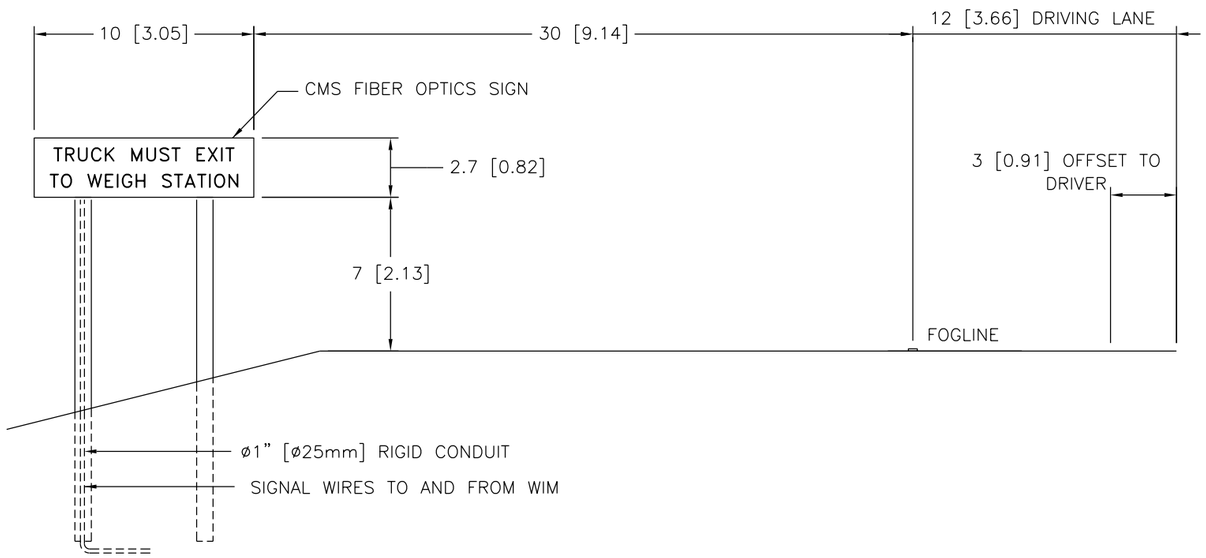


OR





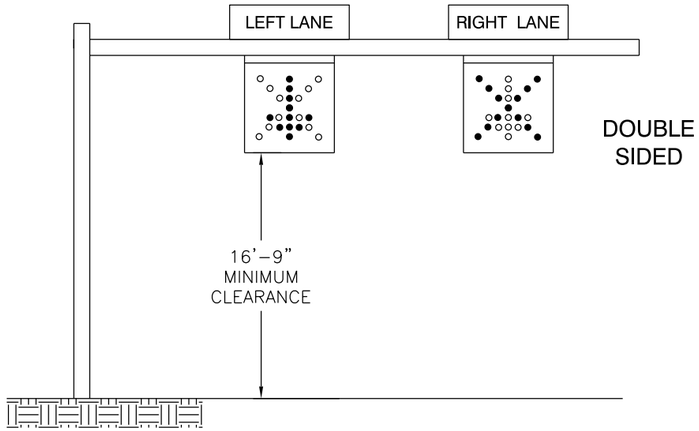
SIGN GEOMETRY



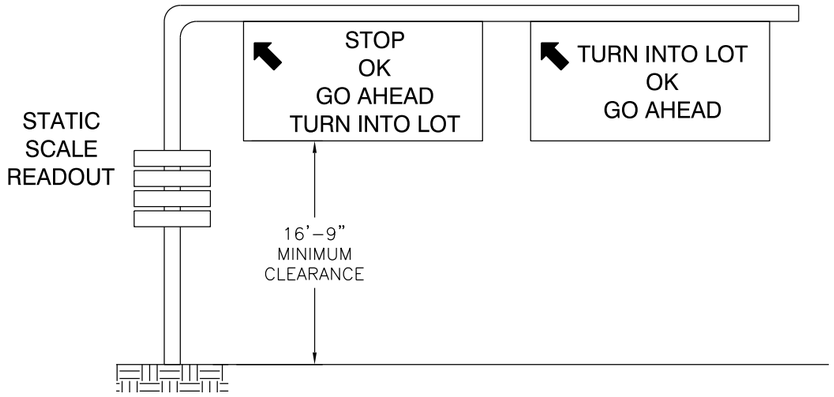
PROJECT NO: 1190-43-71	HWY: SUPERIOR SWEF	COUNTY: DOUGLAS	SITE LAYOUT - WIM / PRE-PASS / STATIC SCALE	SHEET	E

FILE NAME : MWIMLS06 PLOT DATE : PLOT BY : PLOT NAME : MWIMLS06-12 PLOT SCALE :

2



LANE CONTROL SIGNALS – ELEVATION VIEW



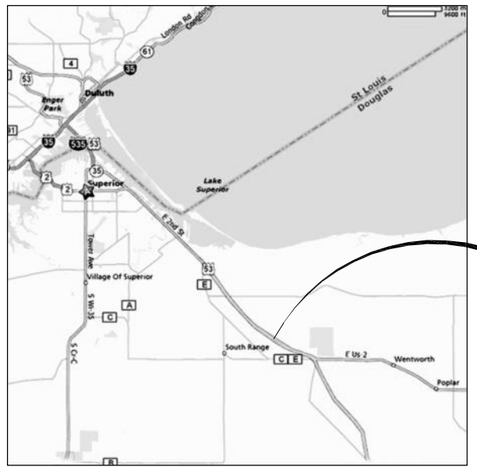
VARIABLE MESSAGE SIGN DETAIL – ELEVATION VIEW

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SUPERIOR SAFETY & WEIGHT
FACILITY NO. 72
USH 2/53
DOUGLAS COUNTY

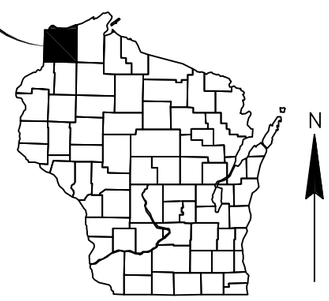
STATE PROJECT NUMBER
1190-43-71



1 LOCATION MAP
NOT TO SCALE

PROJECT LOCATION

SAFETY & WEIGHT FACILITY NO. 71
MEDIAN OF USH 2/53
NEAR WENTWORTH, WI



STATE OF WISCONSIN – COUNTY MAP

Typical Abbreviations List

A.D.	AREA DRAIN	MBD	MARKER BOARD
A.F.F.	ABOVE FINISHED FLOOR	MAS.	MASONRY
A.T.	ACOUSTICAL TILE	M.O.	MASONRY OPENING
ADJ.	ADJUSTABLE	MAX.	MAXIMUM
ALT.	ALTERNATE	MECH.	MECHANICAL
ALUM.	ALUMINUM	MTL.	METAL
@	AT	MIN.	MINIMUM
BRG.	BEARING	N.I.C.	NOT IN CONTRACT
BIT.	BITUMINOUS	N.T.S.	NOT TO SCALE
BLK'G.	BLOCKING		
BR.	BRICK	O.C.	ON CENTER
BLDG.	BUILDING	O.D.	OUTSIDE DIAMETER
		OH.	OVERHEAD
CAB.	CABINET		
CPT.	CARPET	P.	PAINT
CLG.	CEILING	PLAS.	PLASTER
CT.	CERAMIC TILE	P. LAM.	PLASTIC LAMINATE
COL.	COLUMN	PL.	PLATE
CONC.	CONCRETE	PLBG.	PLUMBING
C.B.	CONCRETE BLOCK	PLYWD.	PLYWOOD
CMU	CONCRETE MASONRY UNIT	PCT.	PORCELAIN CERAMIC TILE
CONT.	CONTINUOUS	P/C	PRECAST
CONTR.	CONTRACTOR	P/C TERR.	PRECAST TERRAZZO
C.J.	CONTROL JOINT	PREFAB.	PREFABRICATED
COORD.	COORDINATE	PREFIN.	PREFINISHED
		P.T.	PRESSURE TREATED
DIA.	DIAMETER	Q.T.	QUARRY TILE
DRS.	DOORS	REINF.	REINFORCING OR REINFORCEMENT
D.S.	DOWN SPOUT		
E.W.C.	ELECTRIC WATER CHILLER	REQ'D.	REQUIRED
ELECT.	ELECTRICAL	R.	RISERS
EL.	ELEVATION	R.D.	ROOF DRAIN
ELEV.	ELEVATOR	RFG.	ROOFING
E.P.	EPOXY PAINT	R.F.S	ROOM FINISH SCHEDULE
EQUIP.	EQUIPMENT	RM.	ROOM
EXIST.	EXISTING		
E.P.S.	EXPANDED POLYSTYRENE	SCHED.	SCHEDULE
EXP.	EXPOSED	S.	SEALED
EXT.	EXTERIOR	SIM.	SIMILAR
E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM	S.C.	SOLID CORE
		S.SURF.	SOLID SURFACE
F.V.	FIELD VERIFY	SPEC.	SPECIFICATION
FIN.	FINISH	SPORT SURF.	SPORT SURFACES
F.E.	FIRE EXTINGUISHER	ST.	STAIN
FL.	FLOOR	S.S.	STAINLESS STEEL
F.D.	FLOOR DRAIN	STRUCT.	STRUCTURE OR STRUCTURAL
FTG.	FOOTING		
FDN.	FOUNDATION	T.BD.	TACKBOARD
		T.S.	TACK SURFACE
GEN.	GENERAL	TEMP.	TEMPERED
G.C.	GENERAL CONTRACTOR	TERR.T.	TERRAZZO TILE
GL.	GLASS OR GLAZING	T&G	TONGUE & GROOVE
GL.CMU.	GLAZED CMU	T/	TOP OF
G.F.CMU.	GROUND FACE CMU	T.P.	TOILET PARTITION
GYP. BD.	GYPSUM BOARD	TR.	TREADS
		TYP.	TYPICAL
H&V	HEATING & VENTILATION	UNFIN.	UNFINISHED
H.C.	HOLLOW CORE		
H.M.	HOLLOW METAL	V.B.	VAPOR BARRIER
H.O.	HOLD OPEN ARM	VERT.	VERTICALLY
HORIZ.	HORIZONTAL	V.C.T.	VINYL COMPOSITION TILE
HR.	HOURS	V.W.C.	VINYL WALL COVERING
HYD.	HYDRANT	VB	VINYL BASE
INSUL.	INSULATION	W.W.F.	WELDED WIRE FABRIC
INT.	INTERIOR	WDW.	WINDOW
		W/	WITH
JT.	JOINT	WD.	WOOD
JST.	JOIST		

Material Symbols

- Earth
- Concrete
- Concrete Block
- Face Brick
- Stone
- Structural Steel
- Batt Insulation
- Rough Lumber
- Rigid Insulation
- Finish Wood
- Plywood
- Ceramic Tile
- Gyp. Board
- Plaster or Stucco

Graphic Symbols

- TOILET RM / 101 — Room Name, Room Number
- 2 / A6 — Section Number, Sheet Number
- 2 / A6 — Elevation Number, Sheet Number
- 2 / A6 — Detail Number, Sheet Number
- 101 — Door Number
- 1 — Key Note
- TOP OF WALL ELEV= 100'-0" — Vertical Working Point Elevation
- PLAN NORTH — Plan North
- A — Wall Type
- SF-1 — Storefront Aluminum Type
- BL-1 — Borrowed Lite Indicator
- X — Revision Indicator
- X — Column Reference Grid

ARCHITECT

Vantage Architects, Inc.
750 North Third Street, Suite F
La Crosse, WI 54601-6298
Phone: (608) 784-2729

CONSULTANTS

LANDSCAPE

J.J. Fernholz and Assoc.
W 7267 McHugh Rd.
Holmen, WI 54636-9266
Phone: (608) 526-3683

STRUCTURAL

Ambrose Engineering
W66 N215 Commerce Ct.
Suite 100
Cedarburg, WI 54012
Phone: (262) 377-7602

PLUMBING/ HVAC/ ELECTRICAL

Native Engineering, Inc.
601 Knightsbridge Rd.
Waunakee, WI 53597-1816
Phone: (608) 850-4634

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI				DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: G101	71

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G102 - SHEET INDEX
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C101 - SITE UTILITY PLAN
C102 - SITE PLAN
C201 - SITE PLAN
C202 - DUMPSTER ENCLOSURE PLAN
L101 - LANDSCAPE PARTIAL PLAN
L201 - LANDSCAPE DETAILS AND PLANT LIST
A001 - WALL TYPES
A101 - MAIN LEVEL OVERALL PLAN
A102 - LOWER LEVEL PLAN
A103 - ROOF PLAN
A104 - REFLECTED CEILING PLAN
A105 - FLOOR SLAB PLAN
A201 - ENLARGED FLOOR PLAN
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A203 - ENLARGED TOILET ROOM PLAN
A204 - INSPECTION PIT PLAN & DETAILS
A205 - INSPECTION PIT SECTIONS
A206 - INSPECTION PIT SAFETY NETTING
A301 - BUILDING ELEVATIONS
A302 - BUILDING ELEVATIONS
A401 - BUILDING SECTION
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A404 - WALL SECTIONS
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A406 - DETAILS
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A408 - SECTIONS & DETAILS
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A706 - DOOR DETAILS
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A708 - DOOR DETAILS
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S003 - GENERAL NOTES
S004 - ABBREVIATIONS
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S103 - HIGH ROOF FRAMING PLAN
S501 - FOUNDATION SECTIONS & DETAILS
S502 - FOUNDATION SECTIONS & DETAILS
S503 - FOUNDATION SECTIONS & DETAILS
S504 - FOUNDATION SECTIONS & DETAILS
S505 - FOUNDATION SECTIONS & DETAILS
S506 - FOUNDATION SECTIONS & DETAILS
S507 - FOUNDATION SECTIONS & DETAILS
S508 - FOUNDATION SECTIONS & DETAILS
S509 - FOUNDATION SECTIONS & DETAILS
S510 - FOUNDATION SECTIONS & DETAILS
S511 - FOUNDATION SECTIONS & DETAILS
S512 - FOUNDATION SECTIONS & DETAILS
S514 - FOUNDATION SECTIONS & DETAILS
S515 - FOUNDATION SECTIONS & DETAILS
S516 - FOUNDATION SECTIONS & DETAILS
S517 - EXT. AND INT. WALL SECTIONS & DETAILS
S518 - EXT. AND INT. WALL SECTIONS & DETAILS
S519 - EXT. AND INT. WALL SECTIONS & DETAILS
S520 - EXT. AND INT. WALL SECTIONS & DETAILS
S521 - EXT. AND INT. WALL SECTIONS & DETAILS
S522 - SECTIONS & DETAILS
S523 - ROOF SECTIONS & DETAILS
S524 - ROOF SECTIONS & DETAILS
S525 - PRECAST CAP SECTIONS @ STORAGE 102
S526 - ROOF SECTIONS & DETAILS
S527 - ROOF SECTIONS & DETAILS
S528 - ROOF SECTIONS & DETAILS
S529 - ROOF SECTIONS & DETAILS
S530 - ROOF SECTIONS & DETAILS
S531 - ROOF SECTIONS & DETAILS
S532 - ROOF SECTIONS & DETAILS
S533 - ROOF SECTIONS & DETAILS

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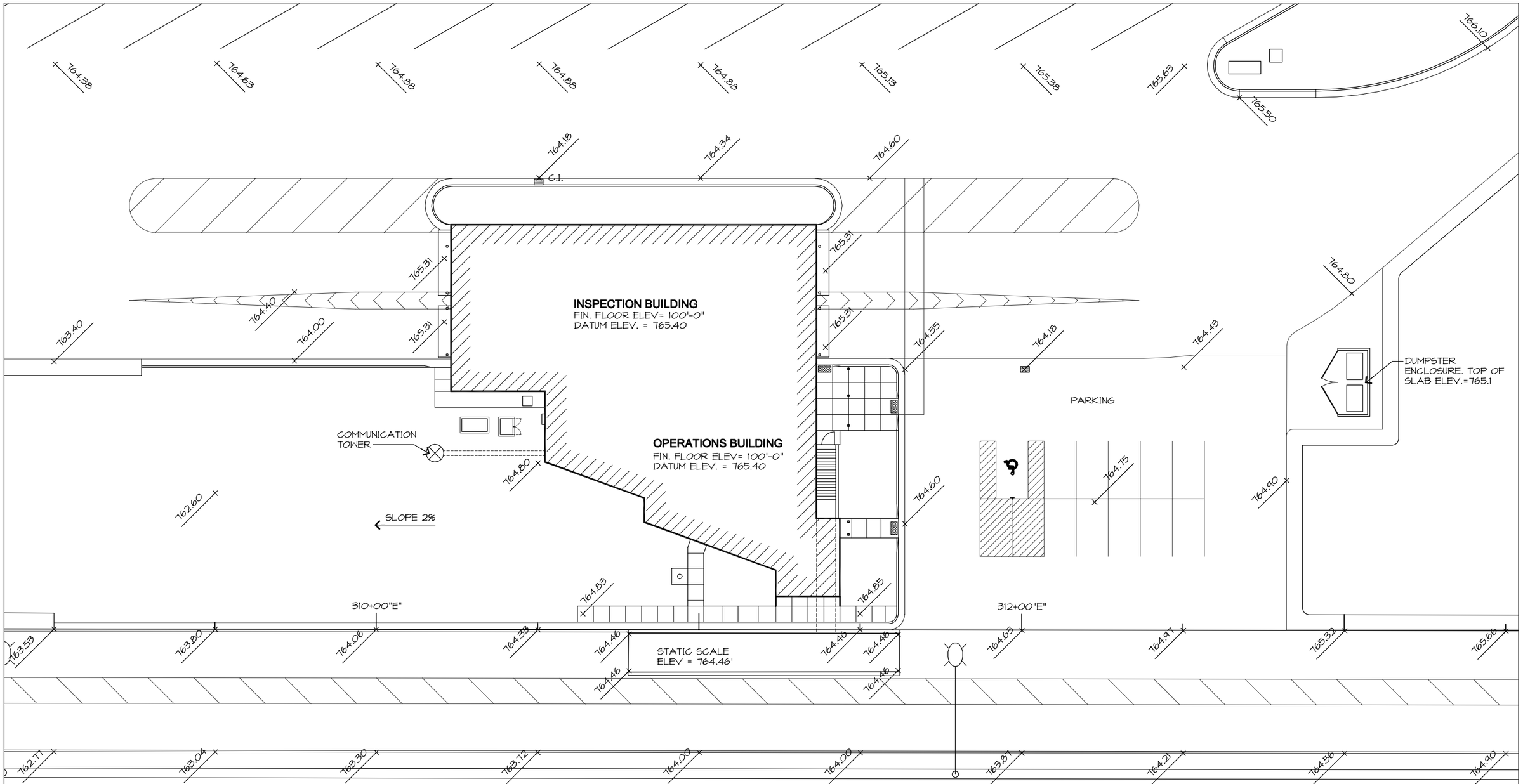
H102 - FLOOR PLAN RADIANT HEATING
H202 - SITE PLAN
H501 - HVAC DETAILS
H510 - GEOTHERMAL SCHEDULE, DETAILS & NOTI
H601 - HVAC SCHEDULES
H602 - HVAC SCHEDULES - CONT.
H603 - HVAC SHCEDULES - CONT.

ELECTRICAL

E100 - SITE PLAN
E101 - FLOOR PLAN - LIGHTING & FIXTURE SCHEI
E102 - FLOOR PLAN - POWER
E103 - FLOOR PLAN - DATA
E501 - ELECTRICAL SYMBOLS & ABBREVIATIONS
E502 - ELECTRICAL RISER & DETAILS
E601 - ELECTRICAL PANEL SCHEDULE
E602 - ELECTRICAL MOTOR SCHEDULE
E603 - ELECTRICAL PANEL SCHEDULE CONT.

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SHEET INDEX		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: G102	



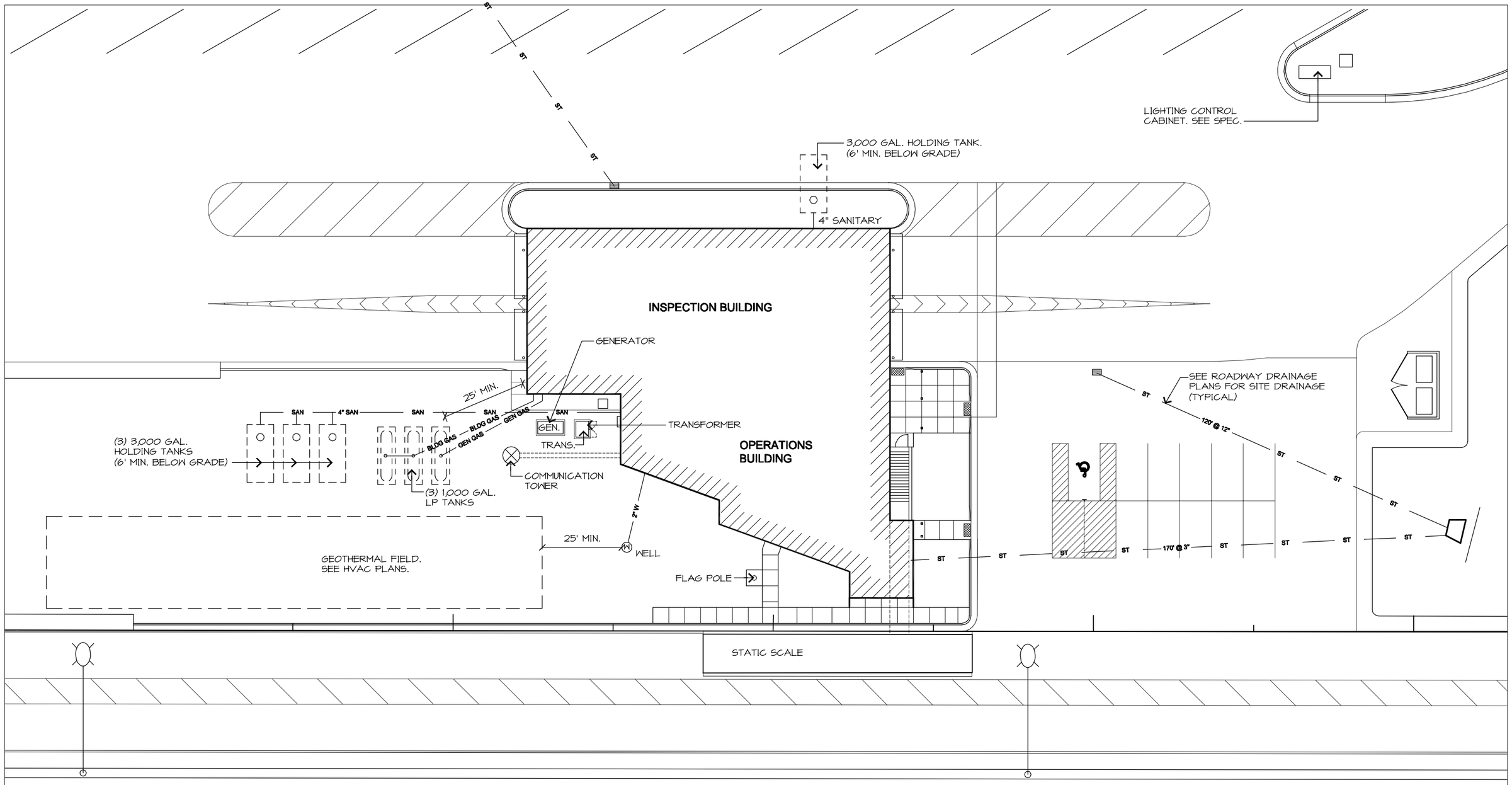
1 SITE GRADING PLAN

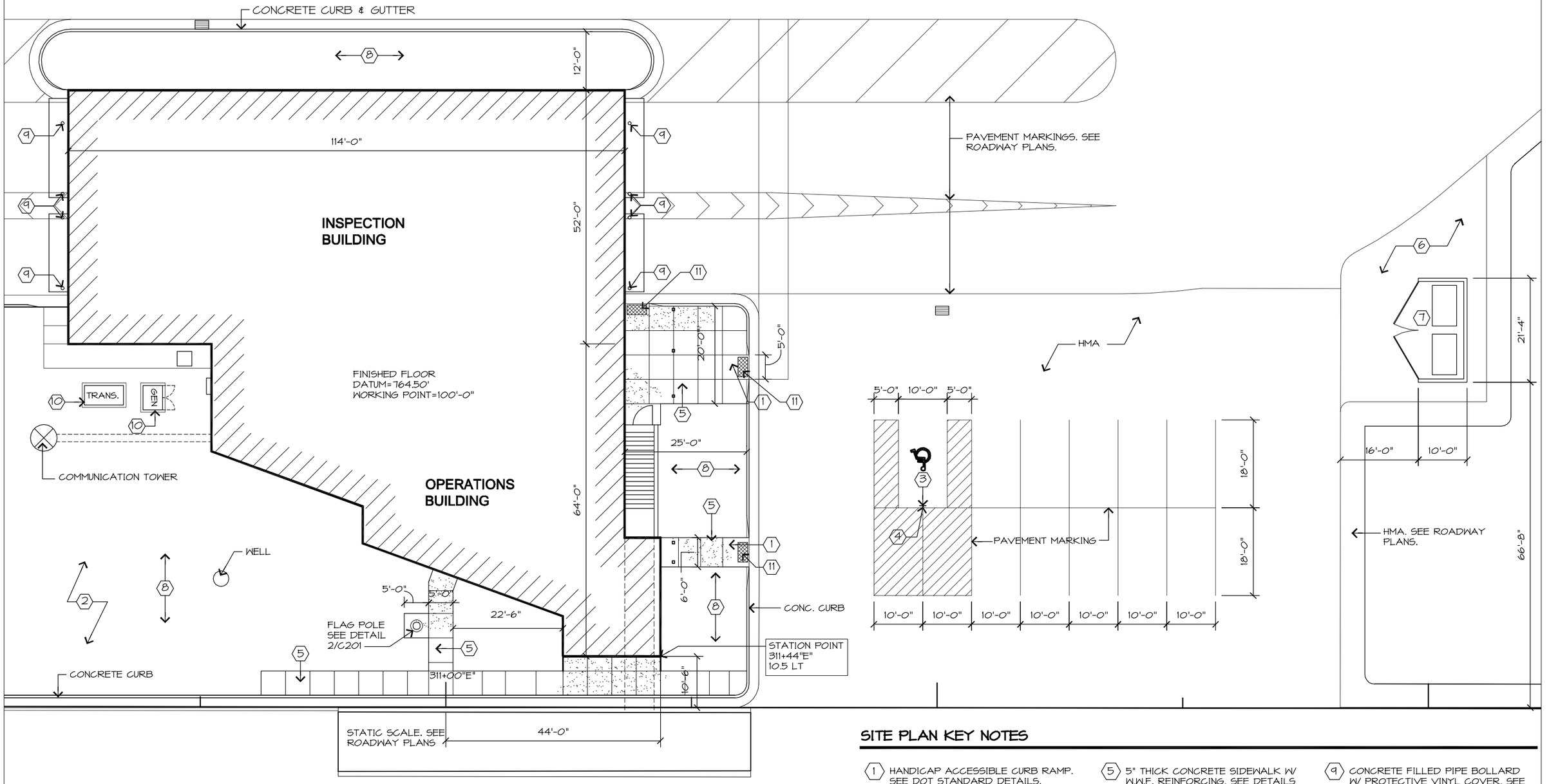
1"=30'-0"

Plan North

True North

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SITE GRADING PLAN		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 7.5 15 30 45	SHEET NO: C100	73


LIGHTING CONTROL CABINET. SEE SPEC.
3,000 GAL. HOLDING TANK. (6' MIN. BELOW GRADE)
4" SANITARY
INSPECTION BUILDING
GENERATOR
25' MIN.
SAN
4" SAN
SAN
SAN
BLDG GAS
GEN GAS
SAN
GEN.
TRANSFORMER
TRANS.
(3) 3,000 GAL. HOLDING TANKS (6' MIN. BELOW GRADE)
BLDG GAS
GEN GAS
(3) 1,000 GAL. LP TANKS
COMMUNICATION TOWER
OPERATIONS BUILDING
2" W
25' MIN.
WELL
GEOTHERMAL FIELD. SEE HVAC PLANS.
FLAG POLE
ST
ST
ST



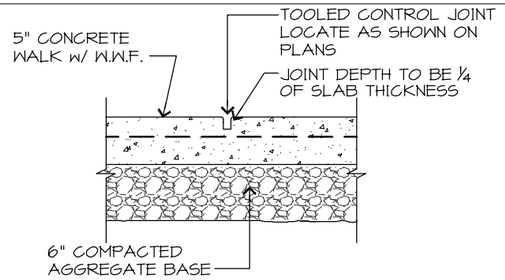
1 SITE PLAN

1"=30'-0"

SITE PLAN KEY NOTES

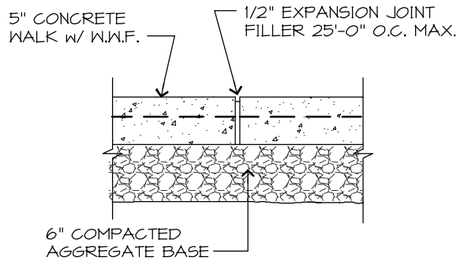
1. HANDICAP ACCESSIBLE CURB RAMP. SEE DOT STANDARD DETAILS.
2. SEE MECHANICAL PLANS FOR GEOTHERMAL SYSTEM AT THIS LOCATION.
3. HANDICAP SIGNAGE. SEE 3/C201 FOR HANDICAP SIGNAGE DETAIL.
4. PURSUIT CAR SIGNAGE. SEE ROADWAY PLANS FOR PURSUIT CAR SIGNAGE.
5. 5" THICK CONCRETE SIDEWALK W/ W.W.F. REINFORCING. SEE DETAILS 4, 5 & 6 ON SHEET C201.
6. 6" THICK CONCRETE PAVING BY ROADWAY CONTRACTOR.
7. SEE SHEET A202 FOR DUMPSTER ENCLOSURE DETAILS.
8. LANDSCAPED AREA. SEE SHEET L101.
9. CONCRETE FILLED PIPE BOLLARD W/ PROTECTIVE VINYL COVER. SEE DETAIL 1/A108.
10. SEE A103 FOR EQUIPMENT PAD INFORMATION.
11. ADA DETECTABLE WARNING SURFACE. TYPICAL AT ALL CURB RAMPS.

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SITE PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 5 10 20 30	SHEET NO: C102



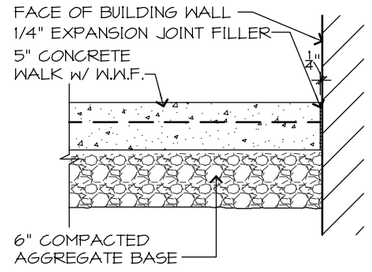
4 SIDEWALK CONTROL JOINT DETAIL

3/4"=1'-0"



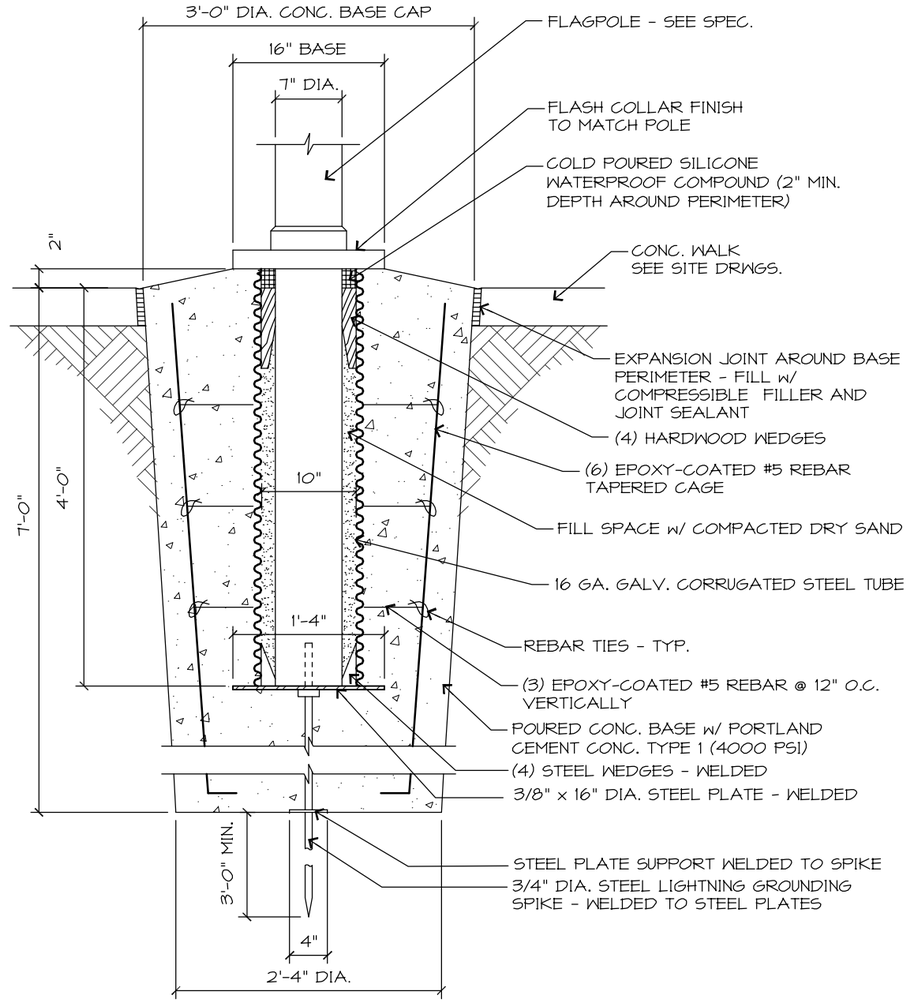
5 SIDEWALK EXPANSION JOINT DETAIL

3/4"=1'-0"



6 SIDEWALK EDGE DETAIL

3/4"=1'-0"

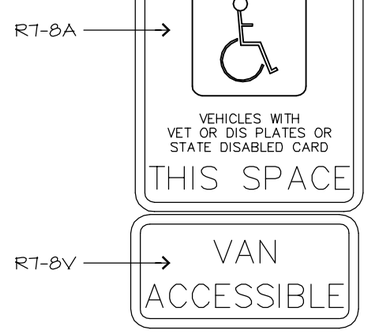


2 TYPICAL EXTERIOR FLAG POLE BASE DETAIL

3/4"=1'-0"

0 4" 8" 16" 24"

SIZE: 12" X 18"



SIZE: 12" X 6"

SIGN MOUNTING HEIGHT:

THE HANDICAP SIGN SHOULD BE INSTALLED NOT LESS THAN 4'-0" FROM BOTTOM OF SIGN TO GRADE AND NOT TO EXCEED 7'-0". THE VAN ACCESSIBLE SIGN SHOULD BE MOUNTED DIRECTLY BELOW THE HANDICAP SIGN.

3 TYPICAL HANDICAP SIGN

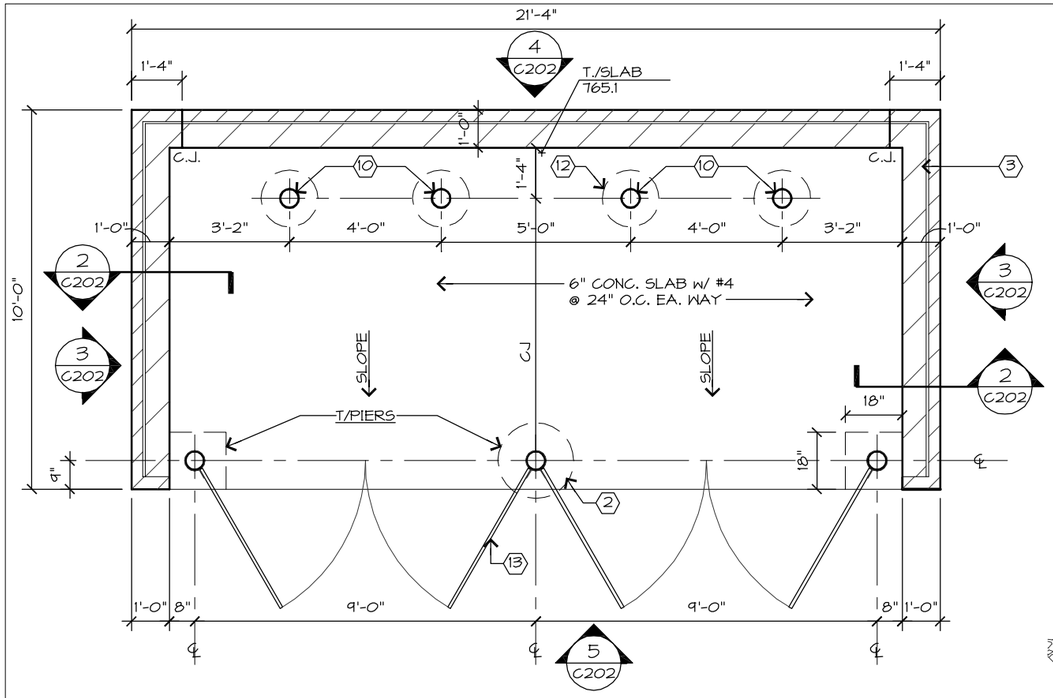
1 1/2"=1'-0"

0 2" 4" 8" 12"

1 NOT USED

N.T.S.

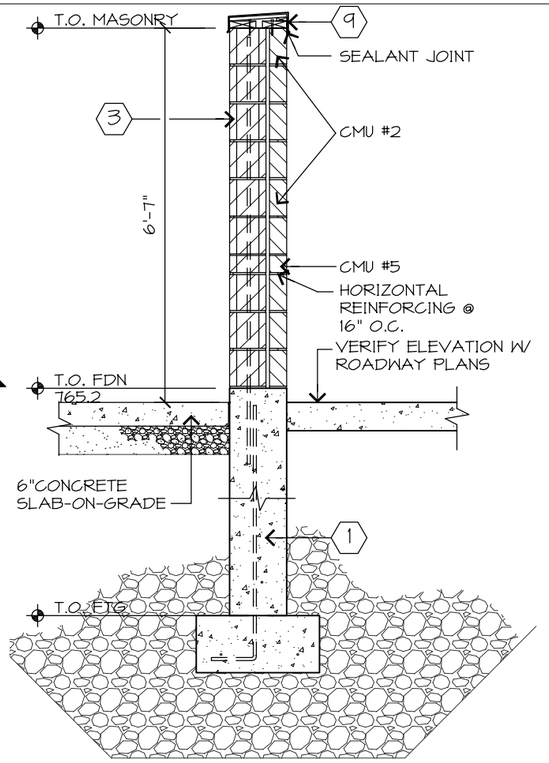
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SITE PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: C201	76



1 DUMPSTER ENCLOSURE PLAN

1/4"=1'-0"

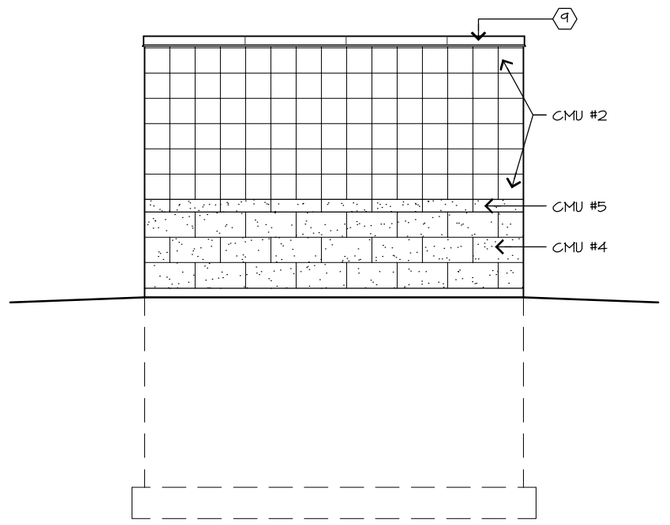
0 1 2 4 6



2 DUMPSTER ENCLOSURE SECTION

3/8"=1'-0"

0 8" 16" 32" 48"



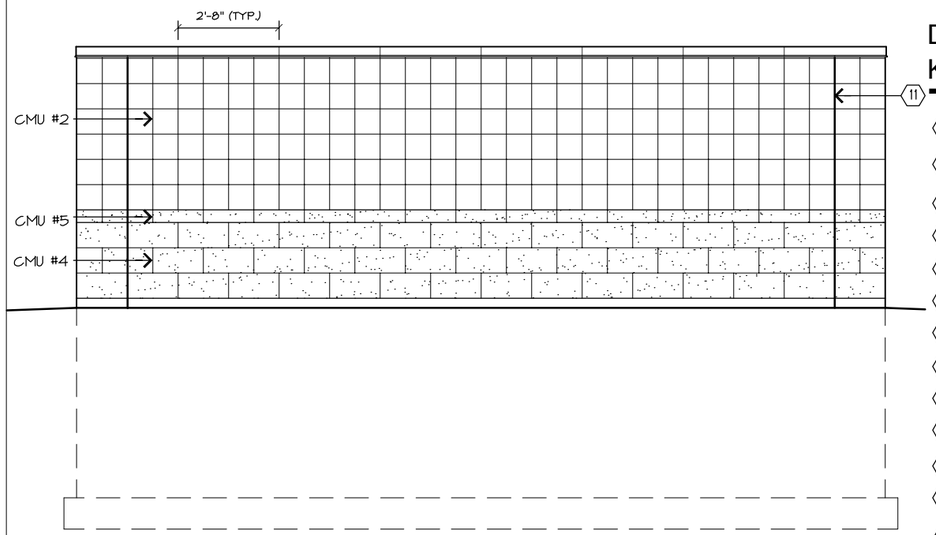
3 DUMPSTER ENCLOSURE ELEVATION

1/4"=1'-0"

0 1 2 4 6

GENERAL NOTES

A. REFER TO SPEC SECTION 32 31 19 - DECORATIVE METAL GATES.



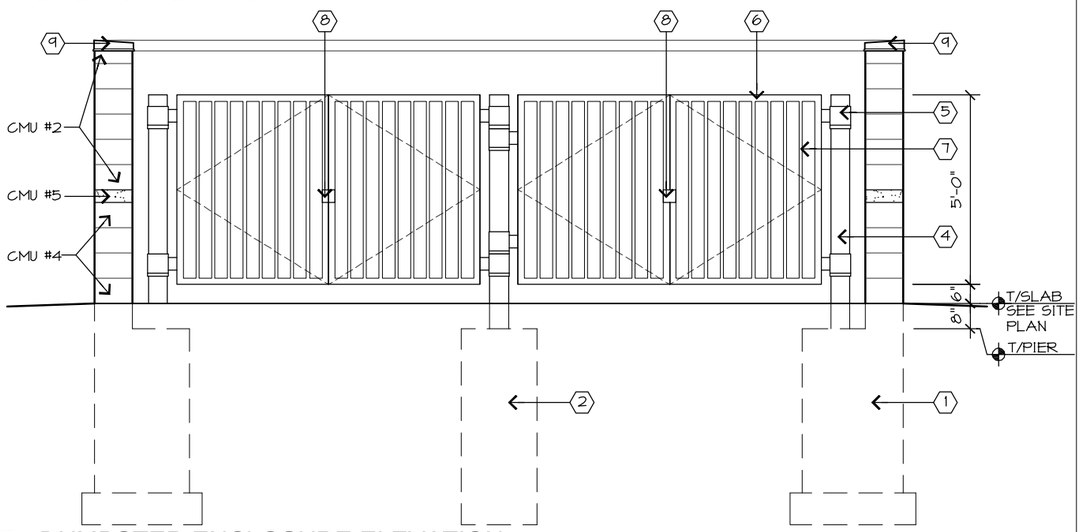
4 DUMPSTER ENCLOSURE ELEVATION

1/4"=1'-0"

0 1 2 4 6

DUMPSTER ENCLOSURE KEY NOTES

1. CAST-IN-PLACE CONCRETE FOOTING & FOUNDATION. SEE STRUCT. DETAIL 2/S505.
2. 24" DIA. x 5'-0" DEEP CAST-IN-PLACE CONCRETE PIER.
3. CMU #1 @ INTERIOR SIDES OF ENCLOSURE.
4. GALV. STEEL GATE POST. PER SPEC SECTION 32 31 19.
5. GALV. GATE HINGES.
6. GALVANIZED 2"x2" TUBE STEEL GATE FRAME.
7. GALVANIZED 1"x1" TUBE STEEL BARS.
8. GATE LATCH.
9. PRE-FINISHED METAL WALL CAP.
10. GALVANIZED PIPE BOLLARD. SEE DETAIL 2/A708.
11. CMU CONTROL JOIN-CAULK
12. 18" DIA. CONCRETE PIER (TYP.) - SEE DETAIL 2/S202.
13. DECORATIVE METAL GATES PER SPEC SECTION 32 31 19.



5 DUMPSTER ENCLOSURE ELEVATION

1/4"=1'-0"

0 1 2 4 6

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DUMPSTER ENCLOUSURE PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: C202	77

SYMBOLS LEGEND

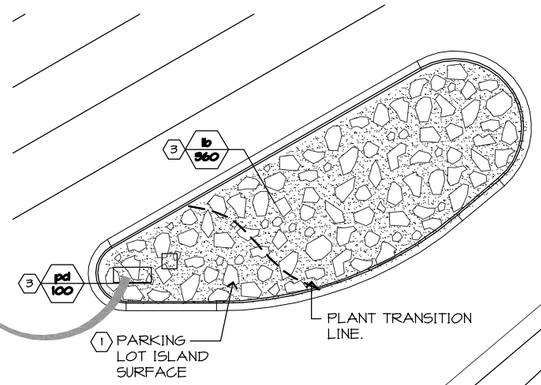
PLANT SYMBOL (SEE PLANT LIST)

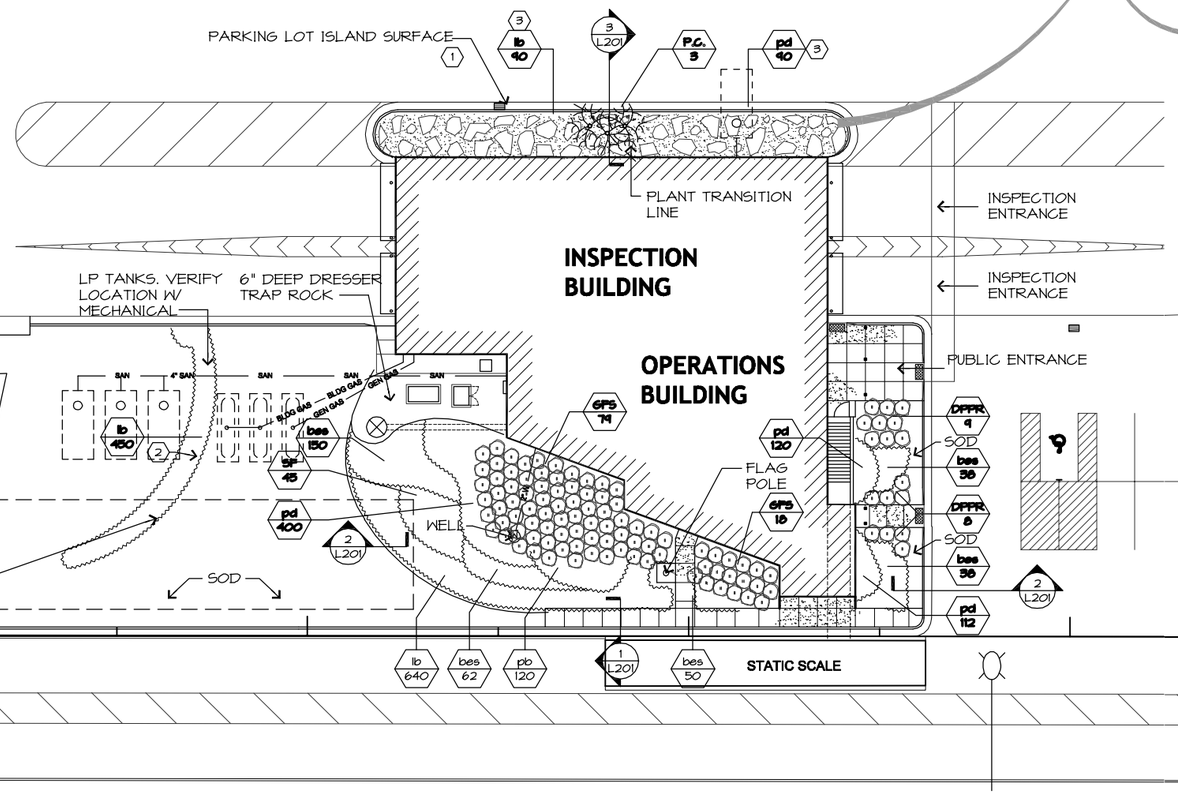
EDGE OF PLANT BED.

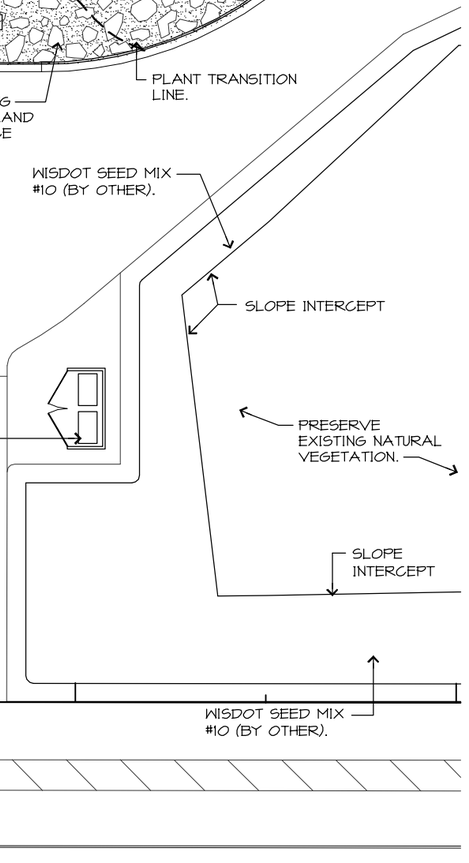
SHEET KEY NOTES (#)

1. PARKING LOT ISLAND SURFACE RECYCLED CONCRETE SLABS 4",5" OR 6" THICK BY 4 TO 25 SQ. FT. ACQUIRED FROM EXISTING SITE WITH LANDSCAPE ROCK
2. NO SOIL PREP REQUIRED IN (lb) LITTLE BLUE STEM BED.
3. PLANTS PLACE RANDOMLY IN LARGEST SPACES

PHOTO REPRESENTS CONCEPT OF PARKING LOT ISLAND SURFACE







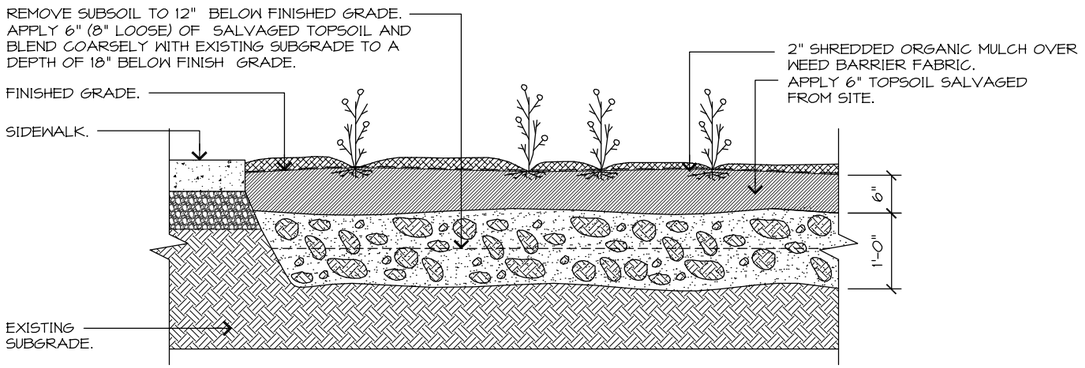
1 ENLARGED PLAN @ BUILDING
1"=40'-0"

North True North

2 PLAN @ SOUTH ISLAND
1"=40'-0"

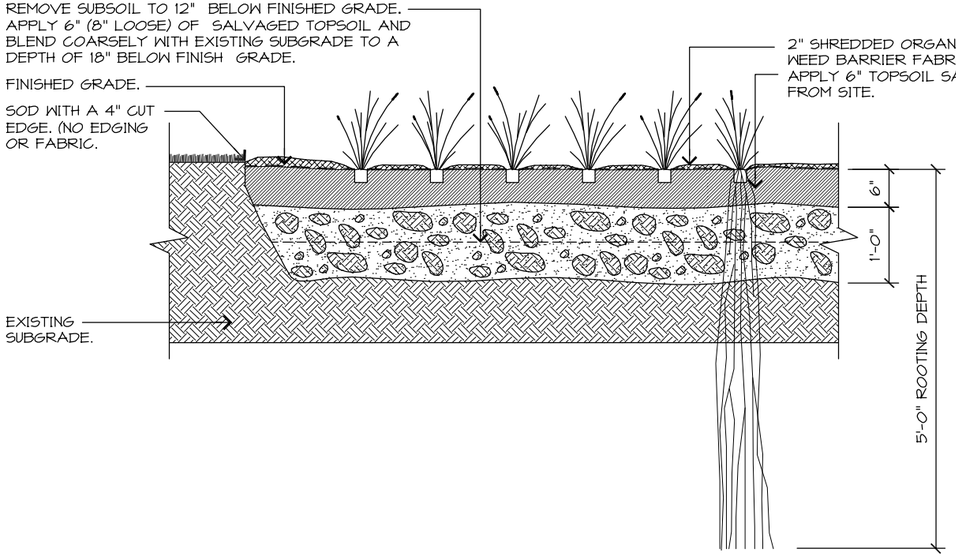
North True North

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI & J. J. FERNHOLZ & ASSOCIATES			LANDSCAPE PARTIAL PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 10 20 40 60	SHEET NO: L101	78



1 SECTION @ SIDEWALK & PLANTING BED

1/2"=1'-0" TYPICAL SOIL PREP IN BEDS ADJACENT TO SCALE BUILDING.



2 SECTION @ SOD & PLANTING BED

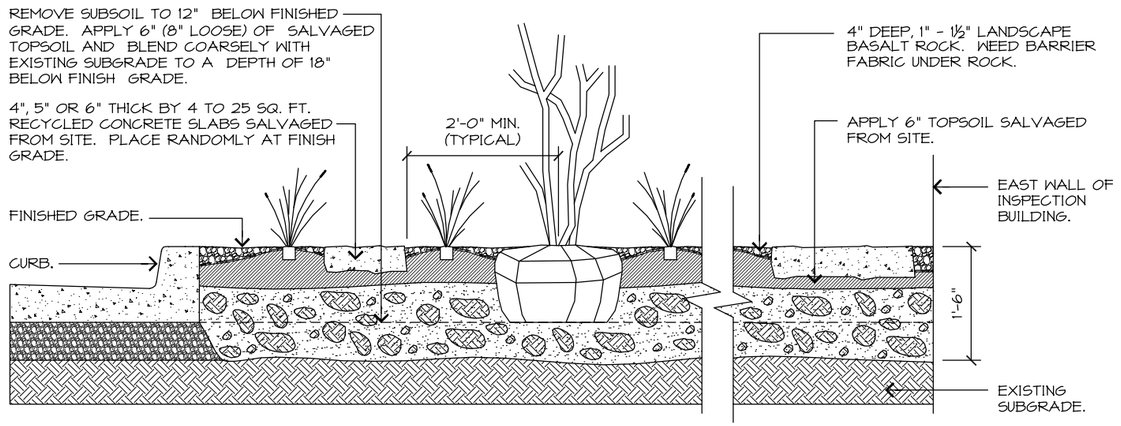
1/2"=1'-0" TYPICAL SOIL PREP IN BEDS ADJACENT TO SCALE BUILDING.

PLANT LIST

Quantity	Scientific Name	Symbol	Common Name	Size	Condition	Spacing	Notes
	See Note 1					in feet	
	DECIDUOUS TREES						
	Small Growing						
3	Prunus pennsylvanica	PC	Pin Cherry	8 Ft. Height	B&B	5	Multi-stem
	SHRUBS						
45	Comptonia peregrina	SF	Sweetfern	1 gallon	Container	2	Note 2
17	Rosa 'Dwarf Pink Pavement'	DPPR	Dwarf Pink Pavement Rose	2 Gallon	Container	4	Non-native
97	Rhus aromatica 'Gro-Low'	GFS	Gro-Low Fragrant Sumac	18 In. Spread	Container	4	Non-native
	PERENNIALS						
120	Liatris pychnostachya	pb	Prairie Blazingstar	4 In. Pot	Container	1.5	
376	Rudbeckia fulgida 'Goldsturm'	bes	Black Eyed Susan	1 gallon	Container	1.5	Non-native
	GRASSES						
1640	Schizachyrium scoparium	lb	Little Bluestem	4 In. Pot	Container	1	
822	Sporobolus heterolepis	pd	Prairie Dropseed	4 In. Pot	Container	1	

Note 1: No clones, cultivars nor non-natives may be substituted for native species. Non-native cultivars are noted.

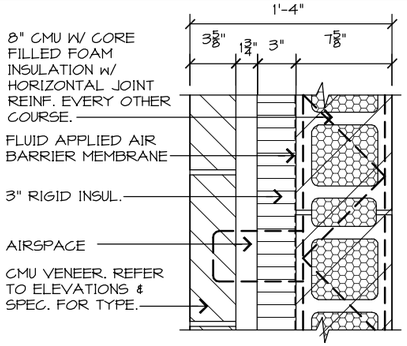
Note 2: May be harvested from wild.



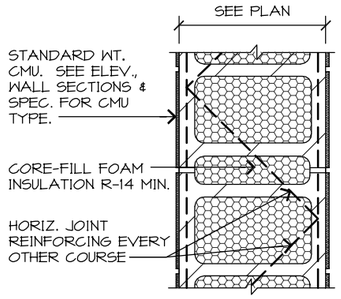
3 SECTION @ CURBED PLANTING BED WITH PARKING LOT ISLAND SURFACE

1/2"=1'-0" TYPICAL SOIL PREP FOR CONCRETE BED ADJACENT TO INSPECTION BUILDING AND IN CURBED BED SOUTH OF 30 DEGREE SEMI PARKING.

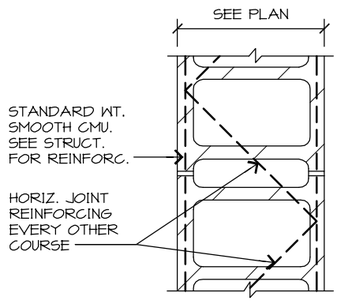
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI & J. J. FERNHOLZ & ASSOCIATES			LANDSCAPE DETAILS & PLANT LIST	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 6" 1 2 3	SHEET NO: L201	79



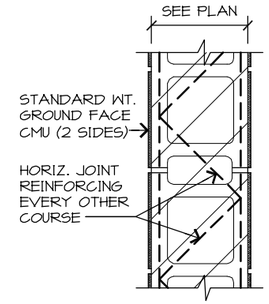
A WALL TYPE
EXTERIOR WALL @ OPERATIONS BLDG



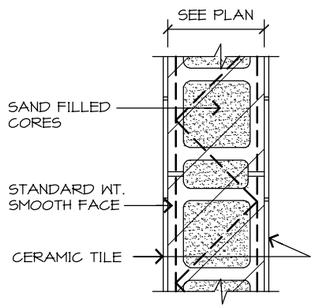
C WALL TYPE
EXTERIOR WALL @ INSPECTION BAY



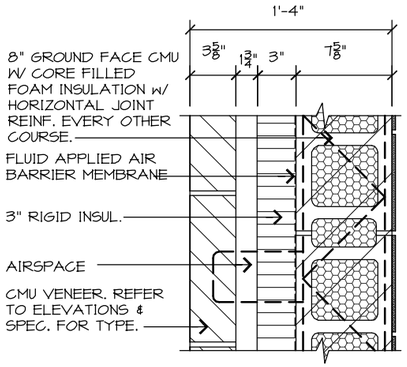
D2 WALL TYPE
INTERIOR WALL - 2HR. RATED FIRE TEST REFERENCE UL U905



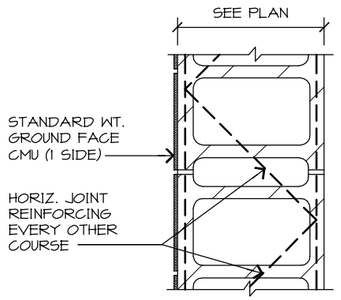
F1 WALL TYPE



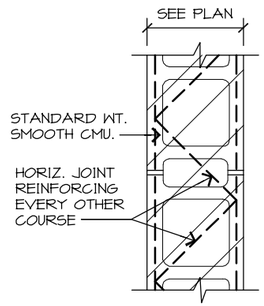
H WALL TYPE



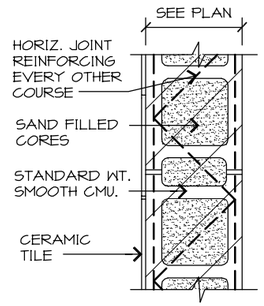
A1 WALL TYPE
EXTERIOR WALL @ OPERATIONS BLDG



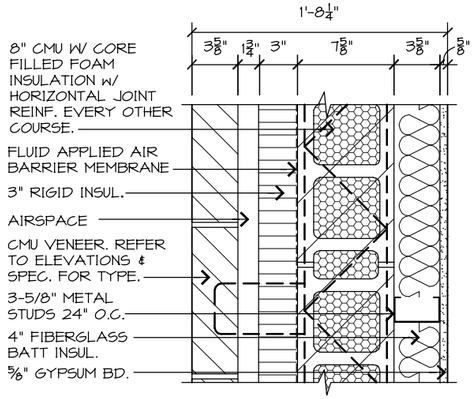
D WALL TYPE
INTERIOR WALL - 2HR. RATED FIRE TEST REFERENCE UL U905



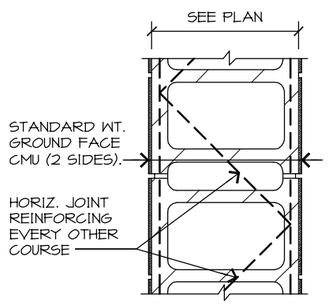
E WALL TYPE



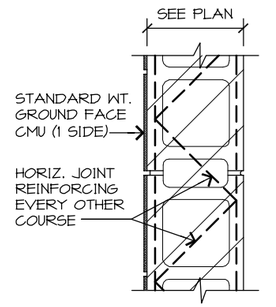
G WALL TYPE
INTERIOR WALL - 2HR. RATED FIRE TEST REFERENCE UL U905



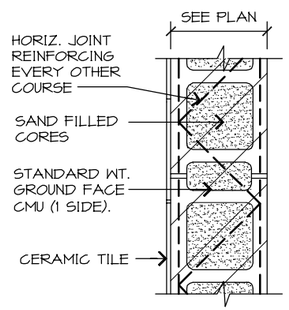
B WALL TYPE
EXTERIOR WALL @ OPERATIONS AREA BELOW COUNTER



D1 WALL TYPE
INTERIOR WALL - 2HR. RATED FIRE TEST REFERENCE UL U905



F WALL TYPE



G1 WALL TYPE

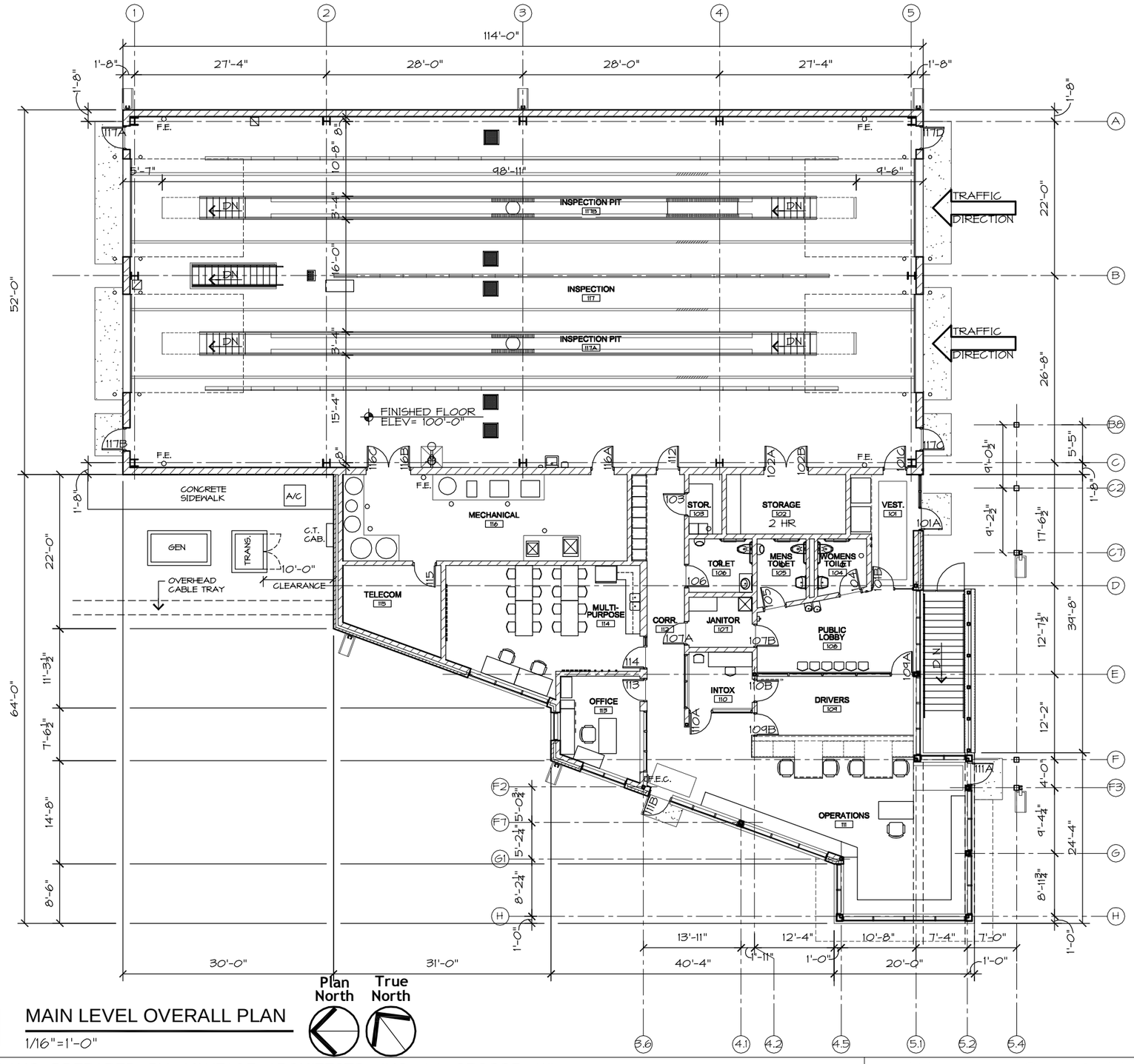
GENERAL NOTES

A - PARTIAL HEIGHT WALLS SHALL EXTEND A MIN. OF (2) COURSES ABOVE CEILING.

B - NOTE: SEE REFLECTED CEILING PLAN FOR WALLS THAT EXTEND TO ROOF DECK.

1 WALL TYPES
1"=1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			WALL TYPES	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 3" 6" 1 1.5	SHEET NO: A001



1 MAIN LEVEL OVERALL PLAN

1/16"=1'-0"

BUILDING CODE INFORMATION

Building Occupancy:
Classification: Operations-Business, Group B
Inspections-Storage, Group S-1

Building Areas: Operations= 3,789 sq. ft. (23,000 allowable)
Operations Lower Level = 159 sq. ft.
Inspections= 5,928 sq. ft. (17,500 allowable)
Inspections Lower Level = 94 sq. ft.
Total building area = 9,970 sq. ft.

Number of Stories: One
Type of Construction:
Operations: Type 2B, Non Combustible: Non-Sprinklered
Inspection: Type 2B, Non Combustible: Non-Sprinklered
Sprinkler Requirements: Per 903.2 Not required
Per 903.2.8 Group S1- An automatic sprinkler system shall be provided for fire areas greater that 12,000 sq. ft.
Fire Alarm: Per 907.2.2 Group B- Manual fire alarm boxes required in a Group B occupancy having an occupant load less than 500 persons
Area Modifications: N. A.
Building Separations: No separation is required per IBC 706.3.8
Fire Partitions:
One-hour separation at storage rooms greater than 100 s. f.
Rated Area
Occupant Load:

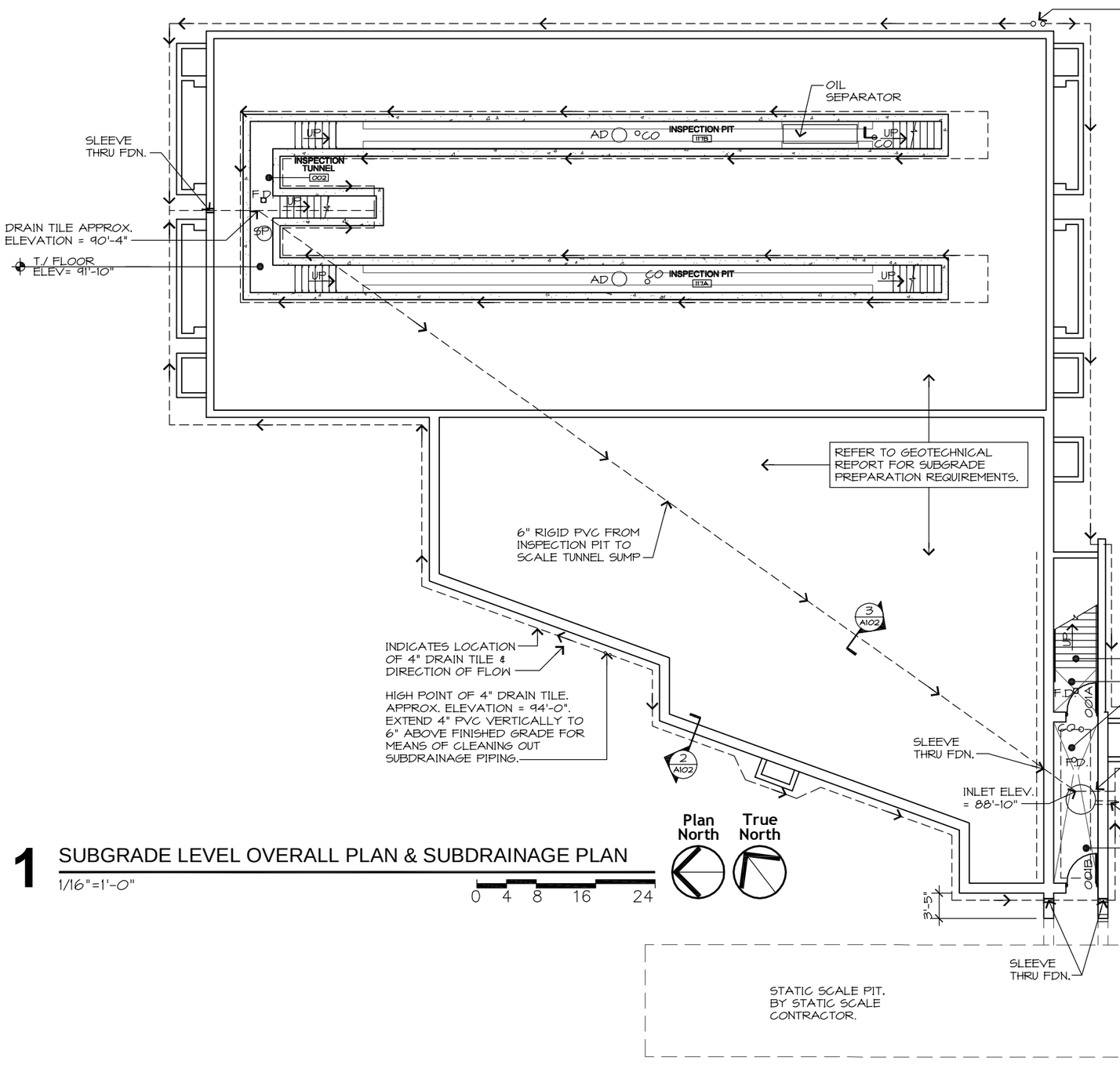
Per Table 1004.1.1	Space	
Business @ 100 sq. ft.	3,789 sq. ft./100 sq. ft. =	38 persons
Inspection @ 300 sq. ft.	5,928 sq. ft./300 sq. ft. =	20 persons
	Total occupant load=	**58 persons**

Exit Requirements:
Table 1019.1 Two exits required where more than 50 person occupant load and less than 500 persons (locate a min. of 1/3 diagonal distance)
Table 1016.1 Travel distance: 200 ft. Non-sprinklered
1014.3 Common path: Common path of travel shall not exceed 75 ft.
1017.3 Dead ends Dead end corridors shall not exceed 20 ft.
1014.2.4 Isle Width Min. width of isles shall not be less than 36"
58 Occupant x 0.20 = 12 inches required
ADA Accessibility:
The project will provide access to all areas of the facility. All spaces in the project will comply with ADA requirements.
Sanitary Fixtures:
Per Table 2902.1

Area	U or WC (M)	WC(F)	Lav	Showers	D.F.	Other
Operations	.76	.76	.95	---	.38	1 service sink
Inspection	.10	.10	.20	---	.04	
Required	.86	.86	1.15	---	.42	1 service sink
Provided	3	2	3	---	2	1 service sink

Fire Extinguishers: 906.1 per NFPA 10 - see floor plans for designated locations.

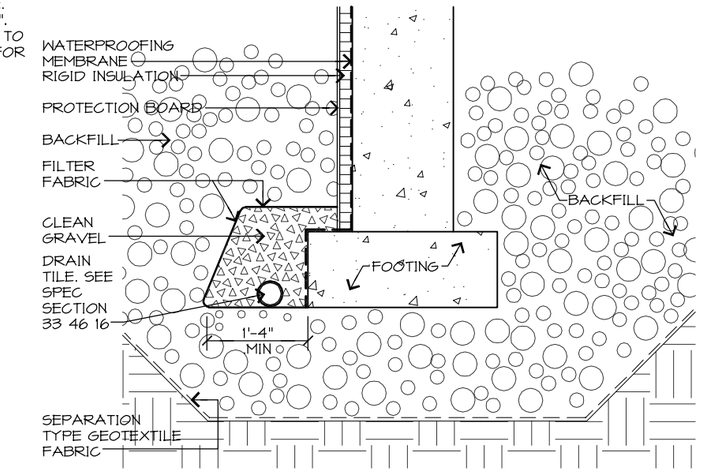
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			MAIN LEVEL OVERALL PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 4 8 16 24	SHEET NO: A101



1 SUBGRADE LEVEL OVERALL PLAN & SUBDRAINAGE PLAN

1/16"=1'-0"

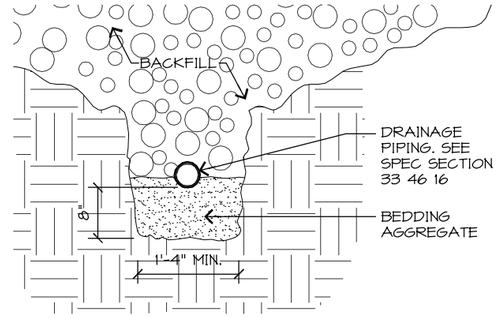
0 4 8 16 24



2 PERIMETER DRAIN TILE DETAIL

1/2"=1'-0"

0 6" 1 2 3

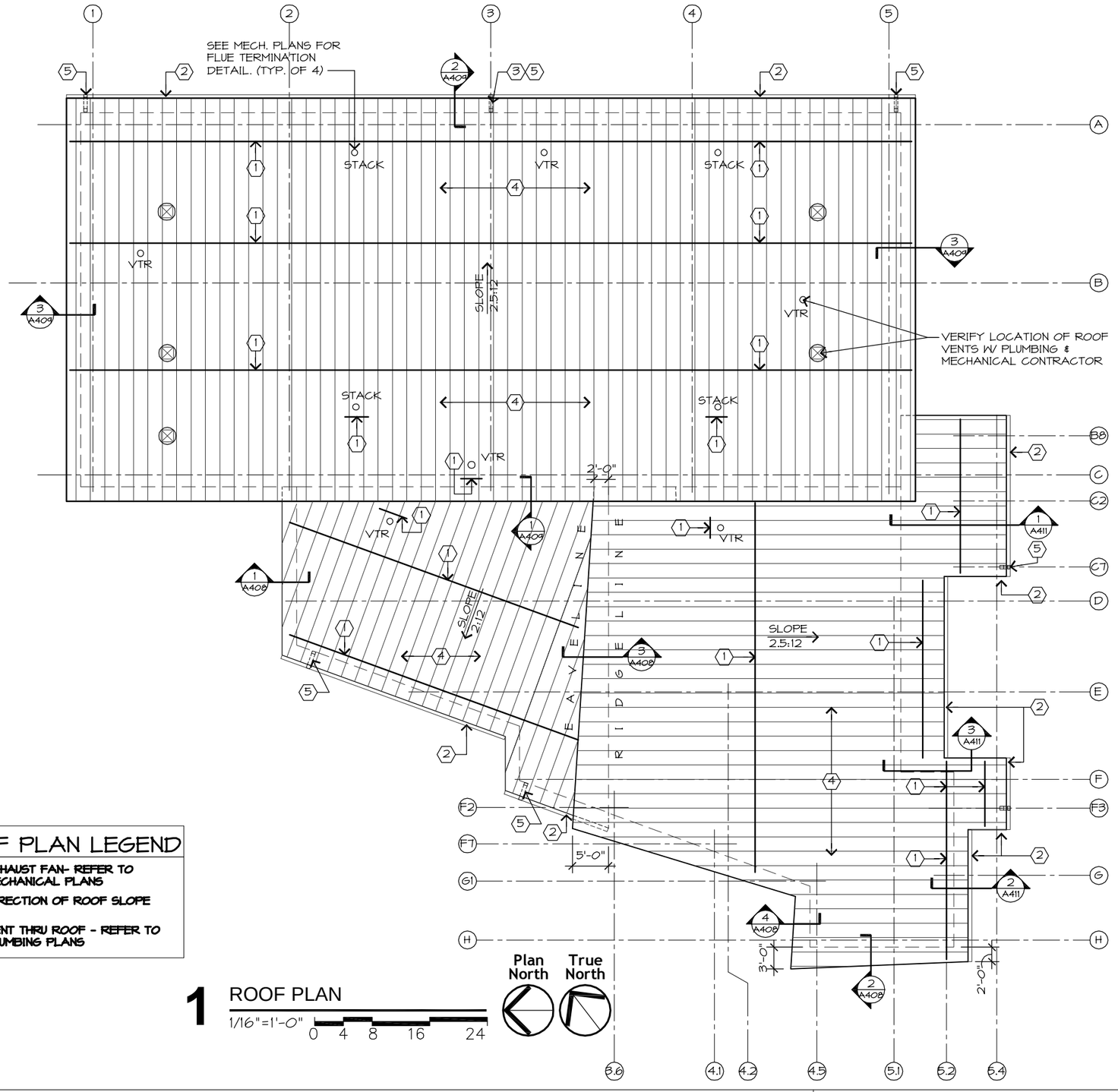


3 MAIN LEVEL OVERALL PLAN

1/2"=1'-0"

0 6" 1 2 3

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			LOWER LEVEL PLAN		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 4 8 16 24	SHEET NO: A102	82



KEY NOTES

1. SNOW RETENTION BAR. SEE 4/A412.
2. PREFINISHED METAL GUTTER. SEE 4/A410.
3. GUTTER EXPANSION JOINT. REFER TO DETAIL 3/A410.
4. PREFINISHED STANDING SEAM METAL ROOFING.
5. PREFINISHED METAL DOWNSPOUT.

GENERAL NOTES

A. SEE PLUMBING & HVAC PLANS FOR SIZES, QUANTITIES & LOCATIONS OF ROOF PENETRATIONS, ROOFING CONTRACTOR TO VERIFY PENETRATIONS W/ ALL BUILDING TRADES.

B. SEE A410 FOR ROOF PENETRATION & CURB DETAILS.

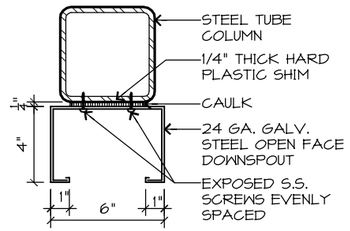
ROOF PLAN LEGEND

- EXHAUST FAN- REFER TO MECHANICAL PLANS
- DIRECTION OF ROOF SLOPE
- VTR — VENT THRU ROOF - REFER TO PLUMBING PLANS

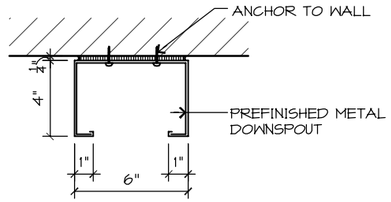
1 ROOF PLAN

1/16"=1'-0"

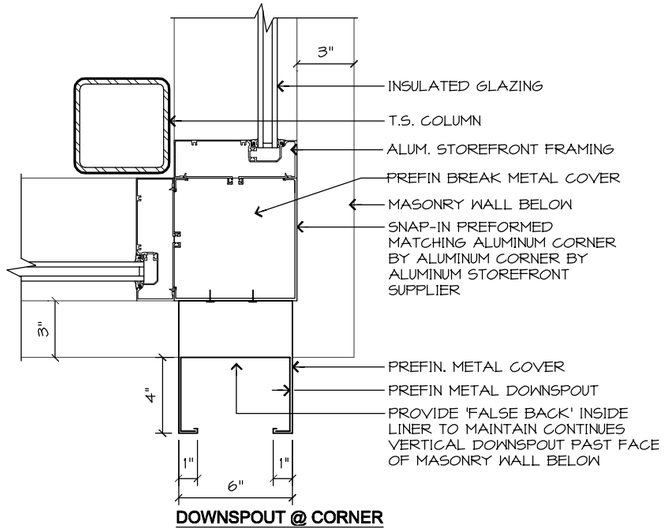
0 4 8 16 24



DOWNSPOUT @ COLUMN



CLOSED-FACE DOWNSPOUT



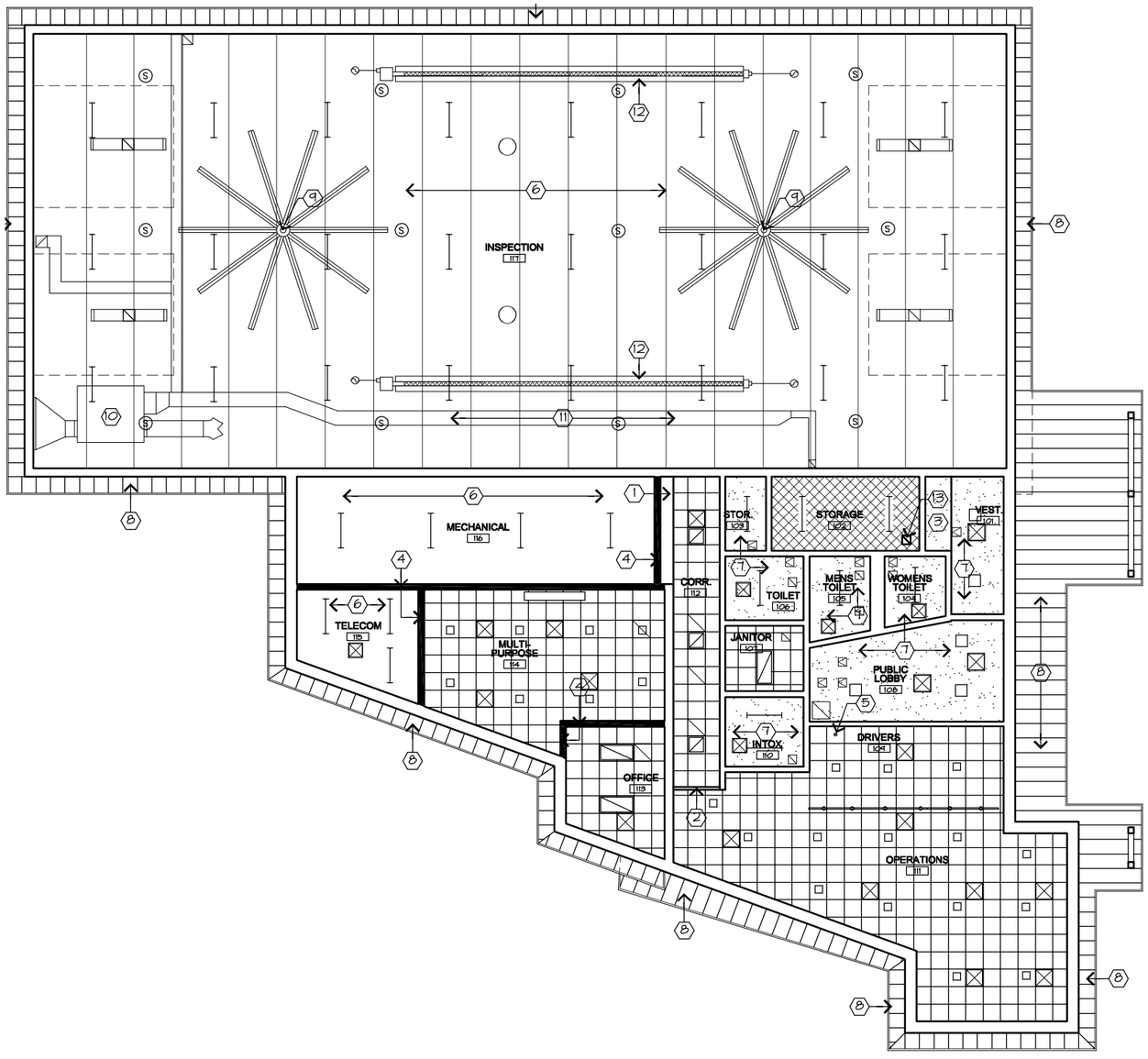
DOWNSPOUT @ CORNER

2 DOWNSPOUT DETAIL

1 1/2"=1'-0"

0 2" 4" 8" 12"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ROOF PLAN		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A103	83



GENERAL NOTES

A. ALL MECHANICAL & ELECTRICAL EQUIPMENT IS SHOWN FOR REFERENCE ONLY. SEE INDIVIDUAL DISCIPLINE DRAWINGS FOR ACTUAL EQUIPMENT AND PLACEMENT.

B. REFER TO ROOM FINISH SCHEDULE ON SHEET A901 FOR CEILING FINISHES & HEIGHTS.

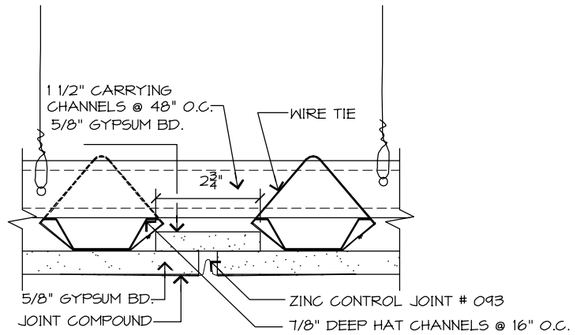
C. WALLS THAT ARE NOT INDICATED TO BE RUN UP TO UNDERSIDE OF ROOF DECK SHALL STOP MINIMUM 16" ABOVE SUSPENDED ACOUSTICAL TILE CEILING.

CEILING PLAN KEY NOTES

1. GYP. BD. SOFFIT ABOVE LOCKERS. SEE DETAIL 1/A803.
2. GYP. BD. SOFFIT. SEE DETAIL 3/A804.
3. GYP. BD. SOFFIT ABOVE VENDING MACHINE AREA. SEE DETAIL 9/A804.
4. NON-BEARING MASONRY WALL TO DECK. SEE DETAIL 1/A804.
5. CEILING MOUNTED WEATHER MONITOR. SEE DETAIL 3/A402 & SPEC 11 52 00.
6. OPEN TO METAL ROOF DECK - PAINT.
7. SUSPENDED GYPSUM BD. CEILING. INTOX, VESTIBULE, TOILET ROOMS, PUBLIC LOBBY & STOR. RM.
8. PREFINISHED METAL SOFFIT PER SPEC SECTION 07 46 00.
9. DESTRATIFICATION FAN. SEE HVAC PLANS.
10. MAKE UP AIR UNIT SUSPENDED FROM ROOF STRUCTURE. SEE MECH. PLANS.
11. EXPOSED SHEET METAL PAINT
12. INFRATED HEAT. REFER TO MECH. PLANS.
13. EXHAUST GRILLE THRU PRECAST CONCRETE HOLLOW CORE PLANK CEILING. SEE HVAC PLANS.

SYMBOL/MATERIAL KEY

SYMBOL:	DESCRIPTION:
	TRACK LIGHTING
	2' X 4' LAY-IN LIGHT FIXTURE REFER TO ELECTRICAL DRAWINGS.
	RECESSED DOWNLIGHT - REFER TO ELECTRICAL DRAWINGS
	SURFACE/WALL MOUNT FLUORESCENT FIXTURE
	RADIANT HEATER, REFER TO HAVC DRAWINGS
	CEILING FAN, REFER TO HVAC DRAWINGS
	CEILING SUPPLY-AIR DIFFUSER - REFER TO HVAC DRAWINGS
	CEILING RETURN-AIR DIFFUSER - REFER TO HVAC DRAWINGS
	ACCESS PANEL. NOTE: PROVIDE ADDITIONAL ACCESS PANELS AS REQUIRED FOR SERVICE AND MAINTENANCE WHERE INACCESSIBLE FINISH CONDITIONS OCCUR.
	SUSPENDED ACOUSTICAL TILE, REFER TO ROOM FINISH SCHEDULE.
	2 HOUR RATED CEILING. REFER TO A407
	INTERIOR NON-BEARING WALLS THAT EXTEND TO ROOF DECK

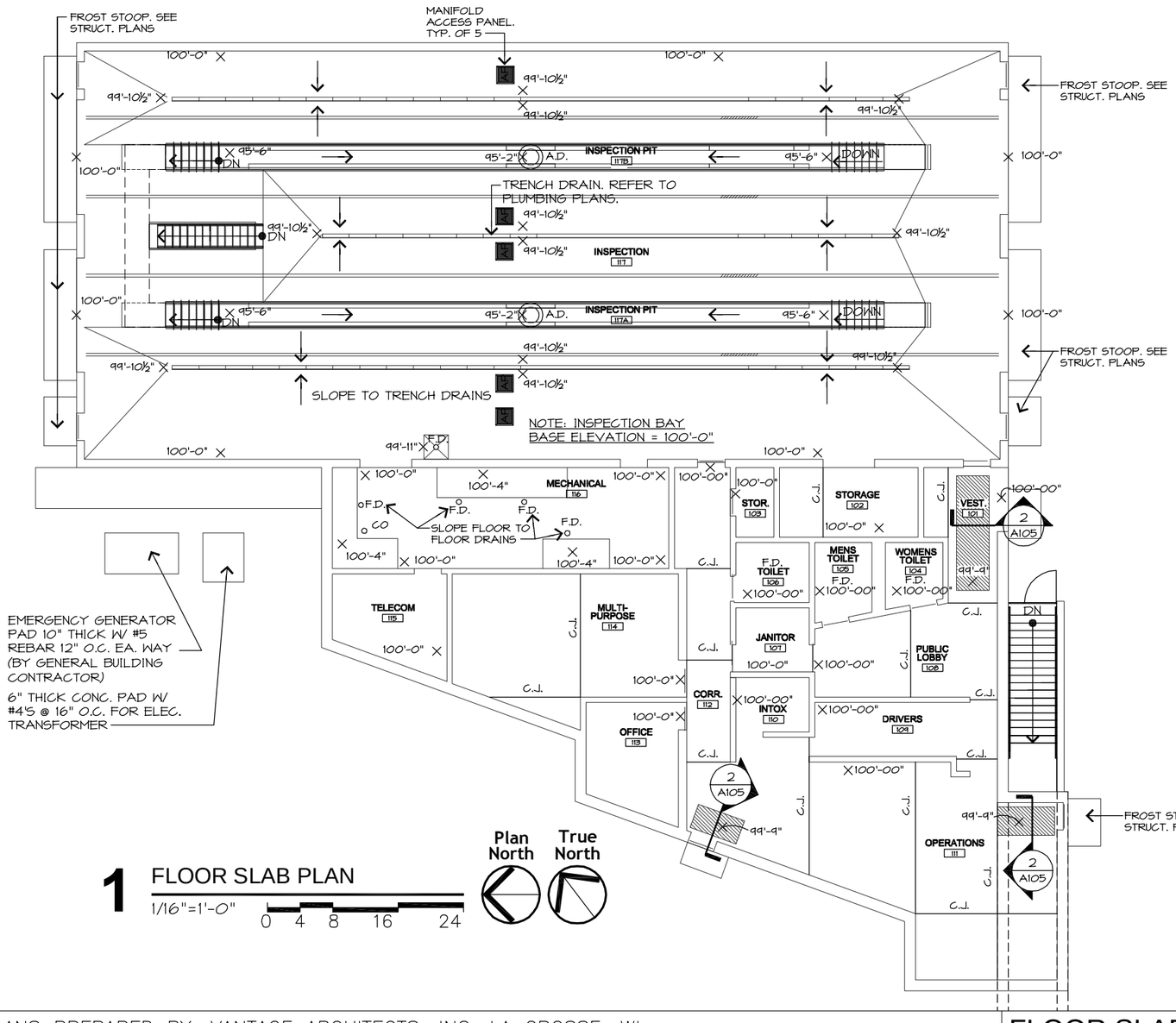


1 REFLECTED CEILING PLAN
1/16"=1'-0"
0 4 8 16 24

Plan North / True North

2 CONTROL JT. @SUSPENDED GYP. BD. CEILING
3"=1'-0"
0 1" 2" 4" 6"

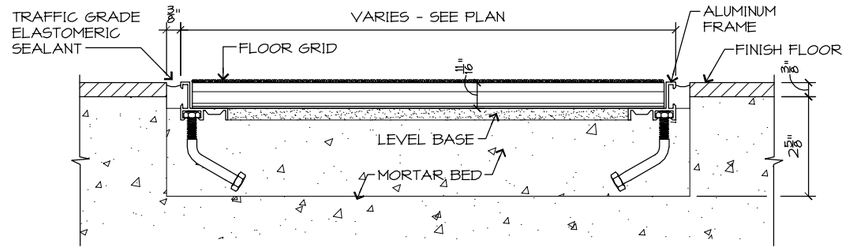
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			REFLECTED CEILING PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 4 8 16 24	SHEET NO: A104



1 FLOOR SLAB PLAN

1/16"=1'-0"

0 4 8 16 24



2 FLOOR GRID SECTION

3"=1'-0"

0 2" 4" 8" 12"

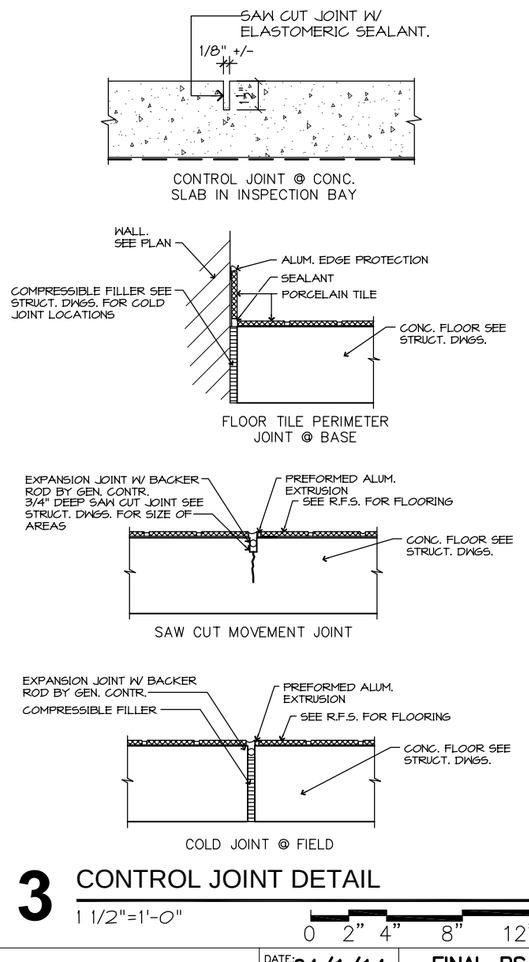
SYMBOL LEDGEND

→	DIRECTION OF SLOPE
100'-0" X	SPOT ELEVATION
C.J.	CONTROL JOINT. SEE DETAIL 3/A105
A.D.	AREA DRAIN
T/S	TOP OF SLAB
A.P.	ACCESS PANEL.
	RECESSED SLAB

GENERAL NOTES

A. IN TOILET ROOMS 104, 105, & 106 SET TOP OF FLOOR DRAINS @ ELEV. 99'-11 3/4".

B. RECESS SLABS AT FLOOR GRIDS 3" PER DETAIL 2/A105.

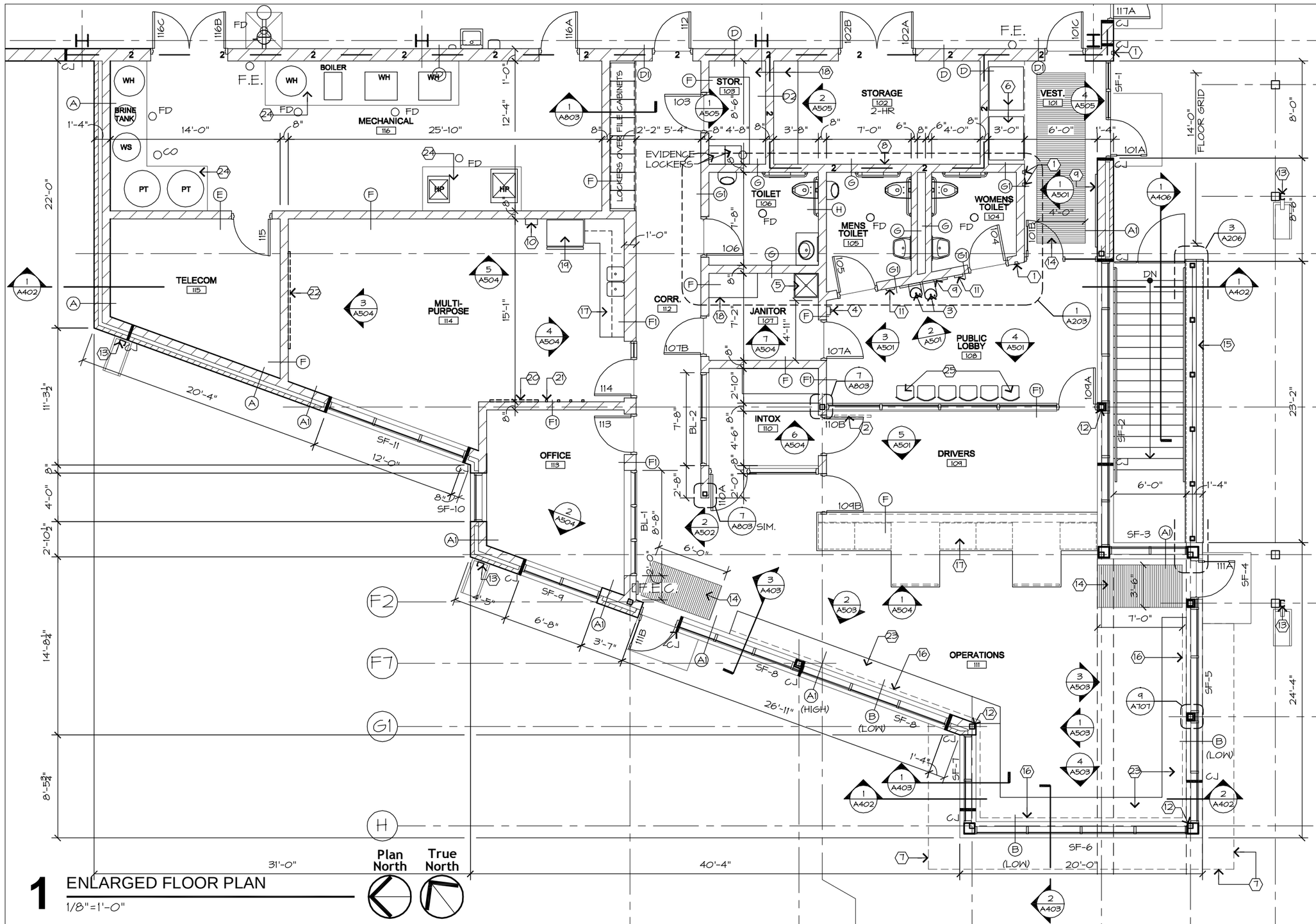


3 CONTROL JOINT DETAIL

1 1/2"=1'-0"

0 2" 4" 8" 12"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR SLAB PLAN	DATE: 04/1/14 FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: SHEET NO: A105



FLOOR PLAN KEY NOTES

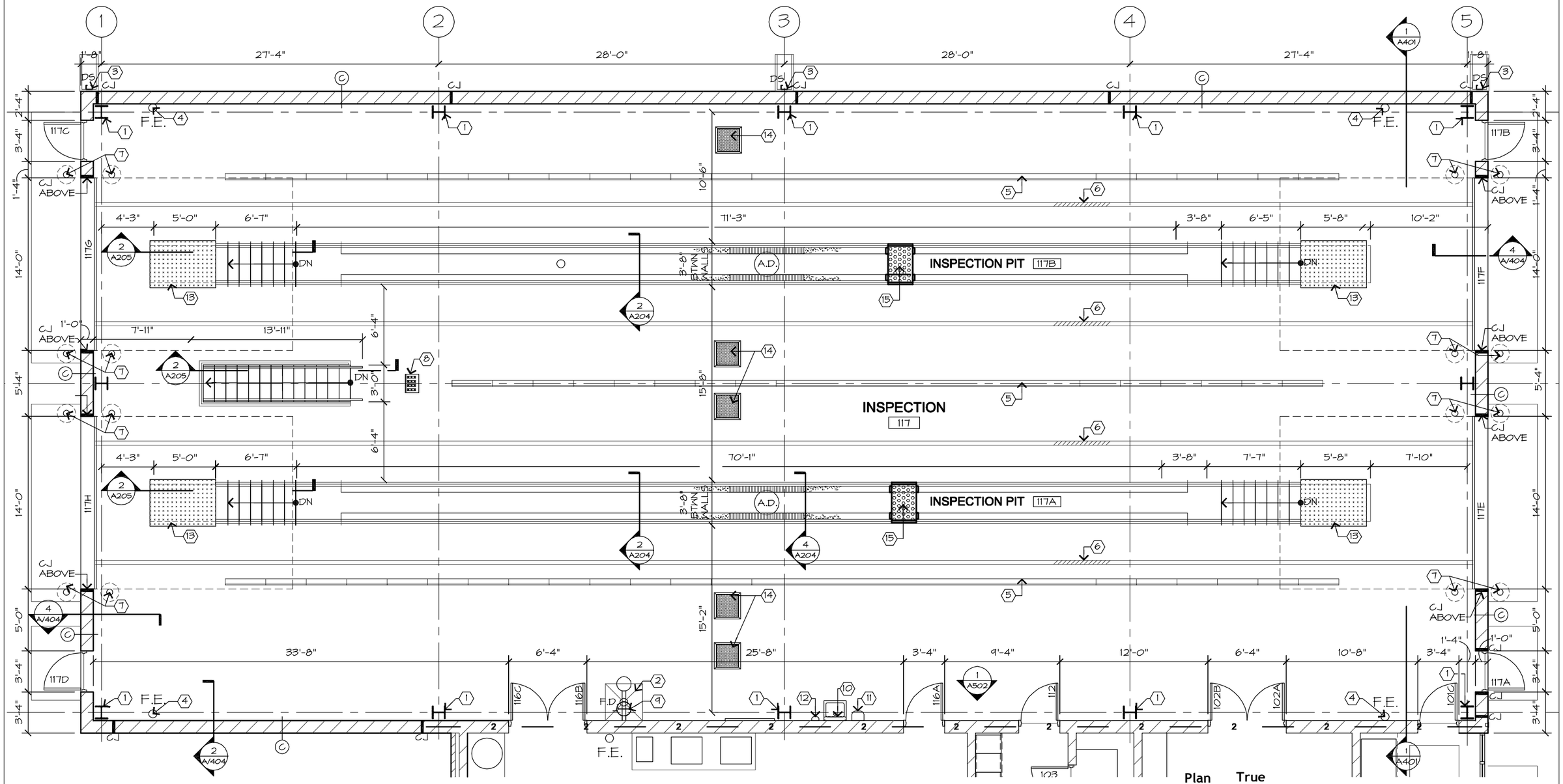
1. RECESSED PUSH PAD FOR AUTO DOOR OPERATOR.
2. SUSPENDED FLAT SCREEN WEATHER MONITOR. SEE DETAIL 3/A402.
3. WALL MOUNTED DUAL LEVEL WATER COOLER. SEE PLUMBING PLANS.
4. WALL MOUNTED COURTESY PHONE. SEE FURNISHING PLAN.
5. MOP SINK. SEE PLUMBING PLANS.
6. VENDING MACHINES. N.I.C.
7. LINE OF SHADING LOUVER ABOVE.
8. G.C. TO INSTALL PLUMBING ACCESS PANELS SUPPLIED BY PLUMBING CONTRACTOR COORDINATE LOCATION W/ PLUMBING PLANS.
9. WALL MOUNTED MAP CASE. SEE FURNISHING PLAN.
10. PAPER TOWEL DISPENSER. SEE FURNISHING PLAN.
11. WALL MOUNTED BROCHURE DISPLAY. SEE FURNISHING PLAN.
12. STEEL COLUMN. SEE STRUCT PLANS.
13. PRE. FIN. OPEN FACE METAL DOWN SPOUT. SEE DETAIL 2/A103 & 2/A405.
14. RECESS ENTRANCE FLOOR GRID. SEE 2/A105.
15. PARTIAL HEIGHT WALL W/ STAINLESS STEEL CABLE RAILING ABOVE. REFER TO 3/206 & 4/402.
16. LINE OF METAL STUD WALL BELOW COUNTER.
17. INTERIOR ARCHITECTURAL WOODWORK PER SECTION 06 40 00.
18. P.LAM ADJ. SHELVING
19. REFRIGERATOR BY OTHERS.
20. VINYL-FACED TACKBOARD PER SPEC SECTION 10 11 00.
21. COAT HOOKS
22. PORCELAIN ENAMEL MARKER BOARD PER SPEC SECTION 10 11 00.
23. SOLID SURFACE COUNTERTOP. SEE DETAILS ON SHEET A/602.
24. 4" HIGH POURED CONCRETE HOUSEKEEPING PAD.
25. FIXED SEATING PER SPEC. SECTION 12 65 00.

1 ENLARGED FLOOR PLAN
1/8"=1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ENLARGED FLOOR PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 2 4 8 12	SHEET NO: A201

PLAN KEY NOTES

1. STEEL COLUMN. SEE STRUCTURAL PLANS.
2. SLOPE FLOOR SLAB TO FLOOR DRAIN.
3. PRE.FIN. OPEN FACE METAL DOWNSPOUT.
4. FE: SURFACE MOUNDED FIRE EXTINGUISHER.
5. TRENCH DRAIN BY PLBG CONTRACTOR. SEE DETAIL 5/A205.
6. PAINTED 4" WIDE TRAFFIC STRIPE. REFER TO SPEC. SECTION 09 90 00.
7. PIPE BOLLARD. REFER TO 1/A801 & 2/708.
8. OVERHEAD DOOR CONTROL CONSOLE. REFER TO 4/A205.
9. EMERGENCY EYE WASH & SHOWER. REFER TO PLUMBING PLANS.
10. WALL MOUNTED S.S. SHELF ABOVE SERVICE SINK.
11. PAPER TOWEL DISPENSER.
12. SOAP DISPENSER.
13. ALUM. PIT COVER. SEE DETAIL 3/A205.
14. ACCESS PANEL @ RADIANT FLOORING MANIFOLD.
15. MOVABLE PIT PLANK (TYP. OF 2)

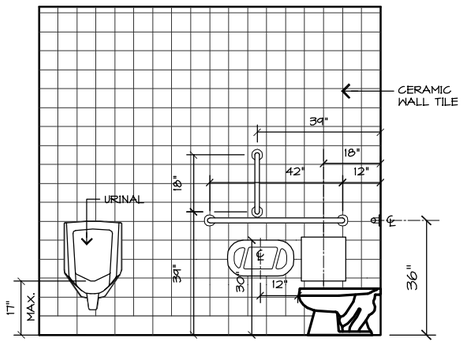


1 ENLARGED FLOOR PLAN @ INSPECTION AREA

1/8"=1'-0"

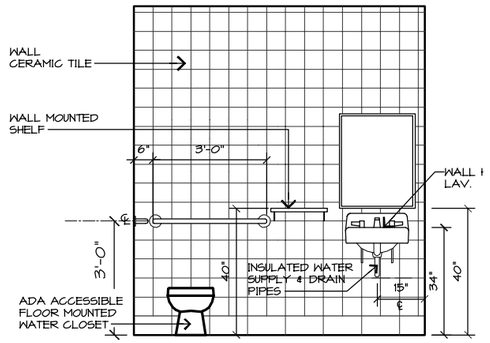
Plan North / True North

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ENLARGED FLOOR PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 2 4 8 12	SHEET NO: A202	87



2 TOILET RM. ELEVATION (TYP.)

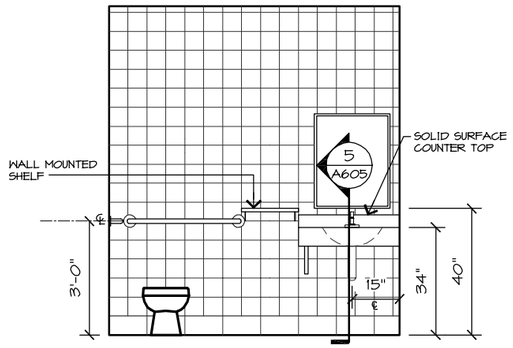
1/4"=1'-0"



3 105 TOILET RM. SOUTH ELEV.

1/4"=1'-0"

104 TOILET RM. NORTH ELEV. SIM.

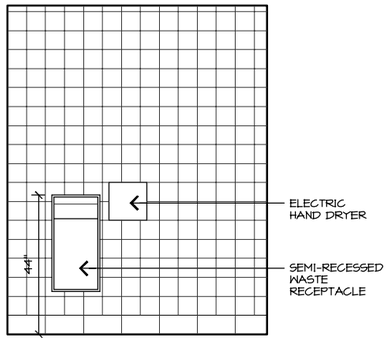


4 EMPLOYEE TOILET RM 106 SOUTH ELEV.

1/4"=1'-0"

TOILET ROOM ACCESSORIES SCHED.

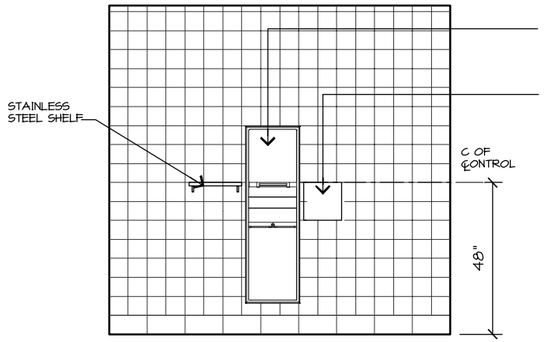
1. STAINLESS STEEL FRAMED MIRROR. 40" A.F.F. TO BOTTOM EDGE.
2. ADA COMPLIANT GRAB BAR. 36" A.F.F. TO ℄.
3. TOILET TISSUE DISPENSER 30" A.F.F. TO TOP EDGE. 12" TO ℄ IN FRONT OF TOILET FIXTURE.
4. LAVATORY MOUNTED SOAP DISPENSER. MOUNTED IN LAVATORY OR VANITY.
5. SEMI-RECESSED WASTE RECEPTACLE. 44" A.F.F. TO TOP.
6. WALL MOUNTED PAPER TOWEL DISPENSER. 48" A.F.F. TO TOP.
7. SANITARY DISPOSAL. TOP EDGE TO BE 3" BELOW GRAB BAR.
8. STAINLESS STEEL SHELF. 40" A.F.F. TO TOP EDGE.
9. 4"D. X 36"L. WALL MOUNTED SHELF. ABOVE PAPER TOWEL DISPENSER.
10. SOAP DISPENSER. 48" A.F.F. TO BOTT. EDGE.
11. ELECTRIC HAND DRYER. 48" A.F.F. TO TOP EDGE.
12. SEMI-RECESSED PAPER TOWEL DISPENSER & WASTE RECEPTACLE. 60" A.F.F. TO TOP.



5 PUBLIC TOILET RM 104 SOUTH ELEV.

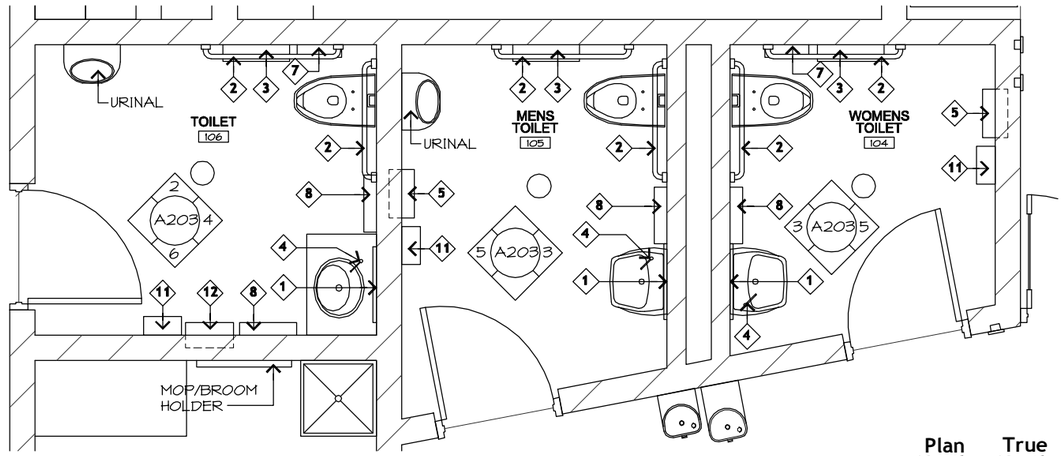
1/4"=1'-0"

105 NORTH ELEV. SIMILAR



6 EMPLOYEE TOILET RM 106 WEST ELEV.

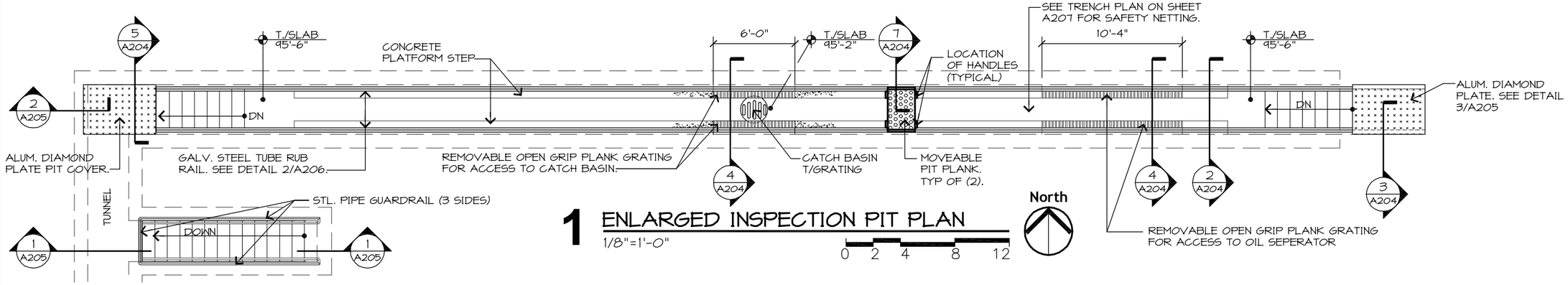
1/4"=1'-0"



1 ENLARGED TOILET ROOMS

1/4"=1'-0"

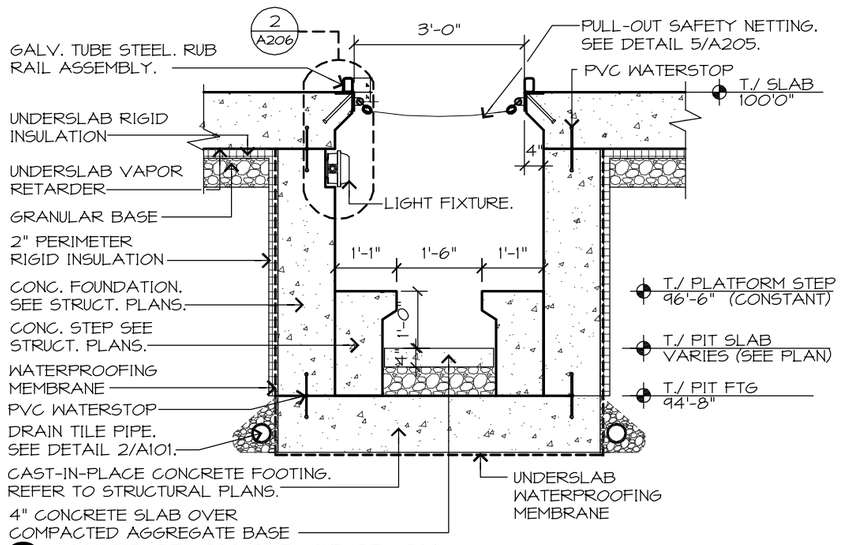
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ENLARGED TOILET ROOM PLAN		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 4 8 16 24	SHEET NO: A203	88



1 ENLARGED INSPECTION PIT PLAN

1/8"=1'-0"

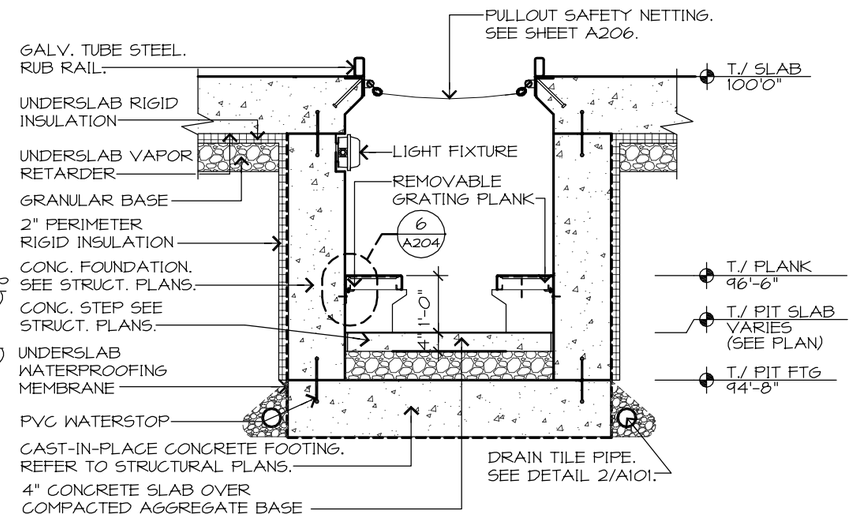
0 2 4 8 12



2 INSPECTION PIT SECTION

3/8"=1'-0"

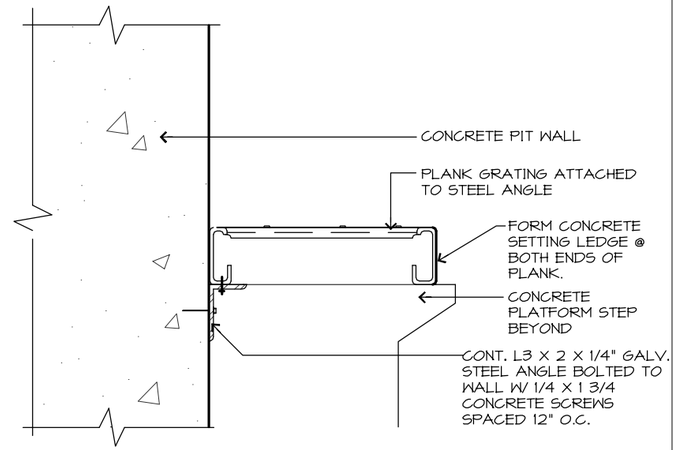
0 8" 16" 32" 48"



4 INSPECTION PIT SECTION @ C.B. ¢ O.S.

3/8"=1'-0"

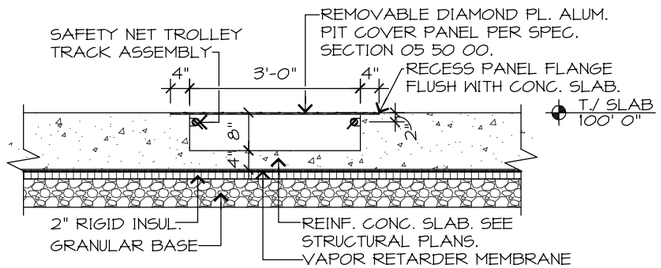
0 8" 16" 32" 48"



6 REMOVABLE PLANK DETAIL

1 1/2"=1'-0"

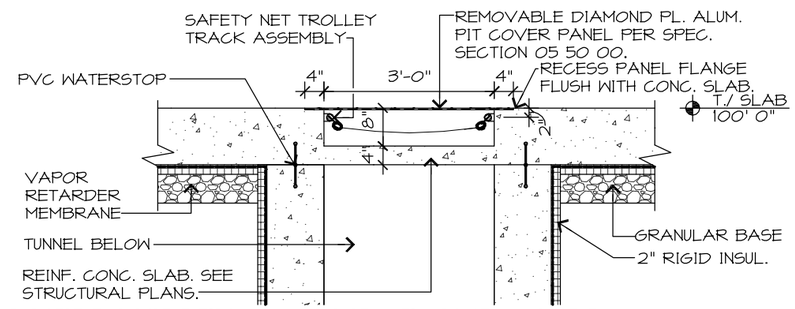
0 2" 4" 8" 12"



3 SECTION THUR PIT COVER/ NET STACKING

3/8"=1'-0"

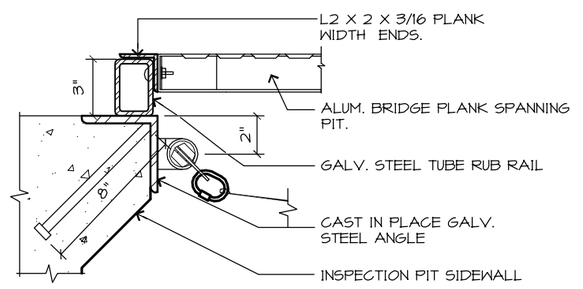
0 8" 16" 32" 48"



5 SAFETY NETTING COLLECTION POCKET

3/8"=1'-0"

0 8" 16" 32" 48"

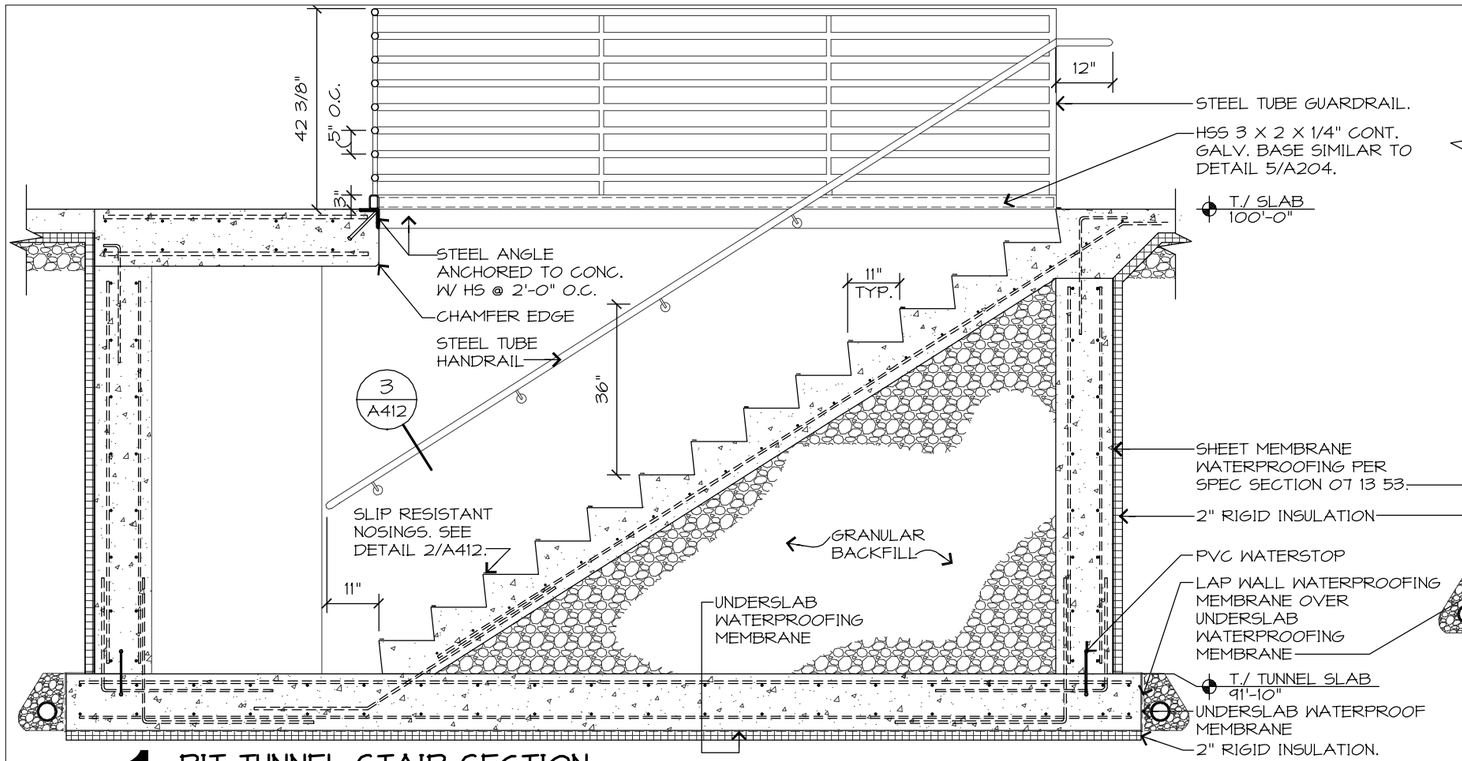


7 MOVABLE PLANK DETAIL

1 1/2"=1'-0"

0 2" 4" 8" 12"

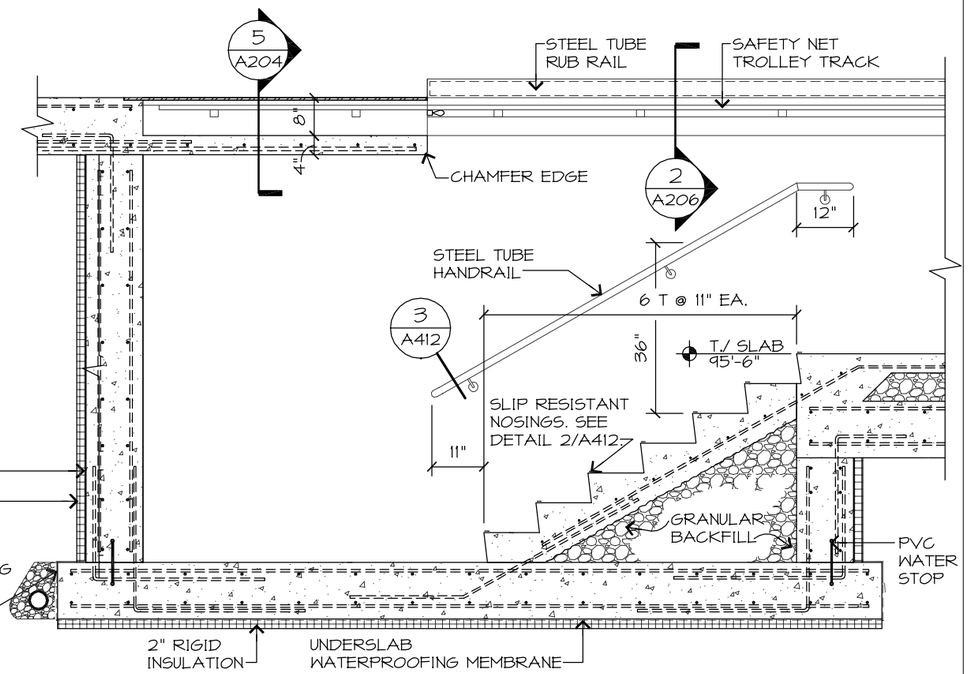
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			INSPECTION PIT PLAN & DETAILS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A204



1 PIT TUNNEL STAIR SECTION

3/8"=1'-0"

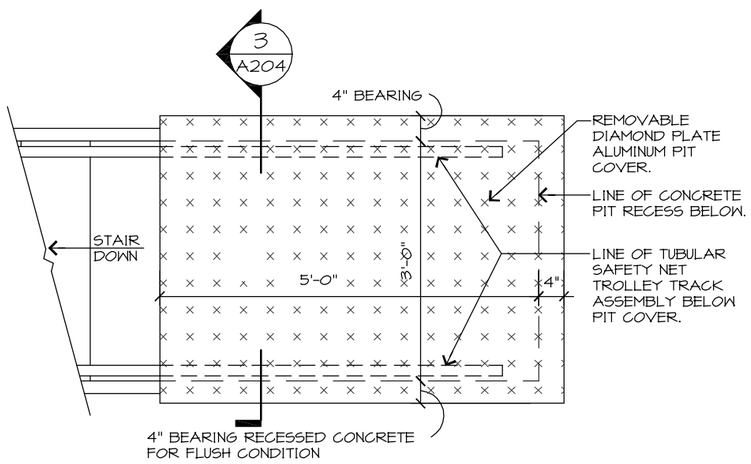
0 8" 16" 32" 48"



2 PIT ACCESS STAIR SECTION

3/8"=1'-0"

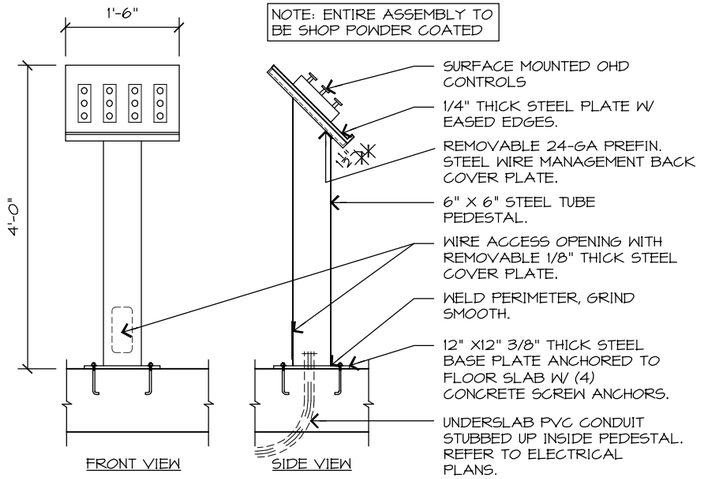
0 8" 16" 32" 48"



3 PIT COVER PLATE DETAIL

1/2"=1'-0"

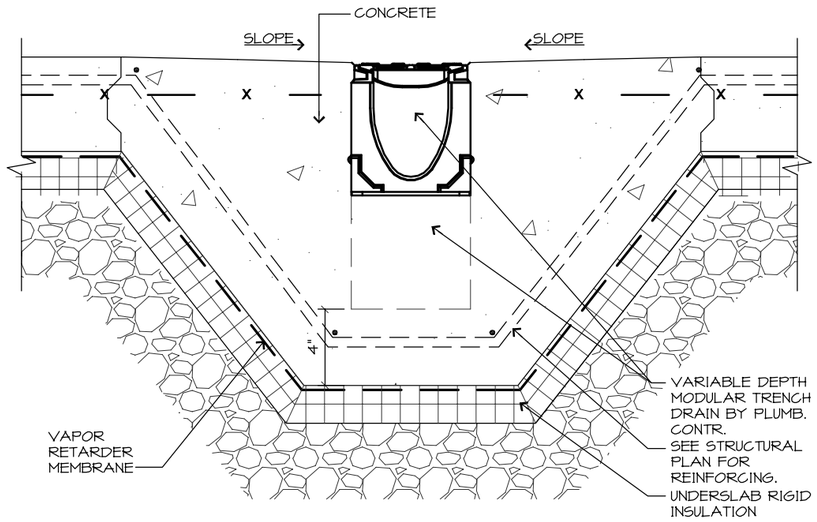
0 6" 1 2 3



4 OVERHEAD DOOR CONTROL STATION

1/2"=1'-0"

0 6" 1 2 3

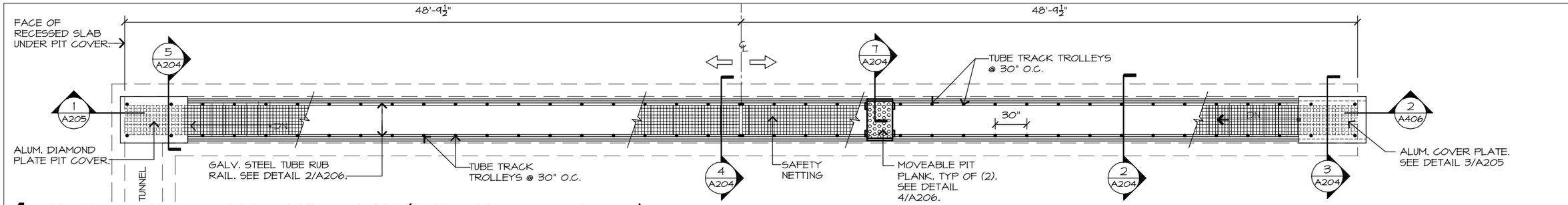


5 TRENCH DRAIN DETAIL

1 1/2"=1'-0"

0 2" 4" 8" 12"

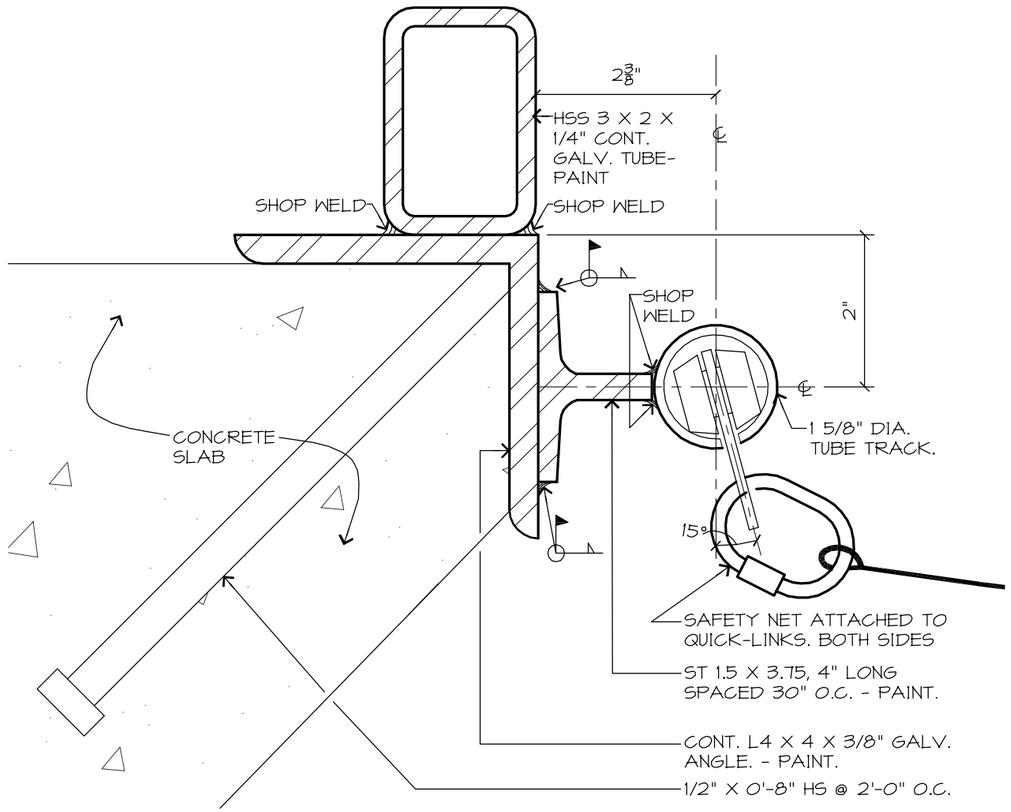
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			INSPECTION PIT SECTIONS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A205



1 INSPECTION PIT SAFETY NET PLAN (TYPICAL @ BOTH PITS)

1/8"=1'-0"

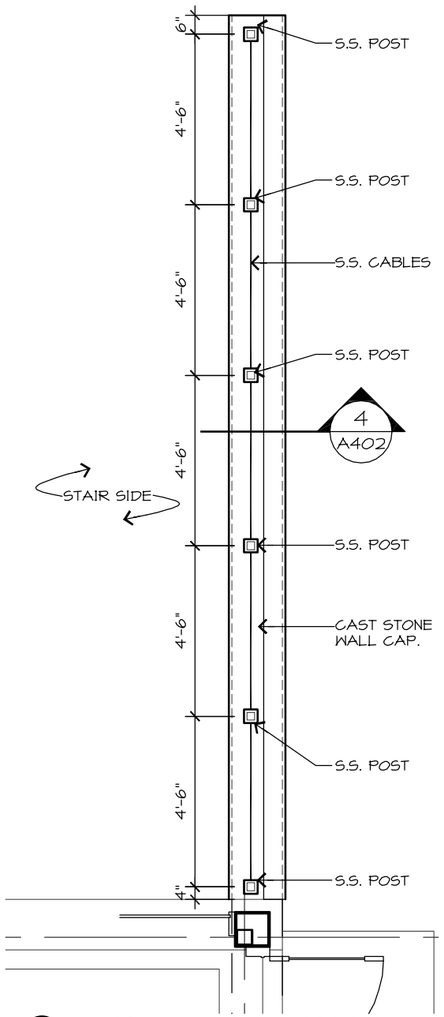
0 2 4 8 12



2 PIT SAFETY NETTING TROLLEY TRACK ASSEMBLY

6"=1'-0"

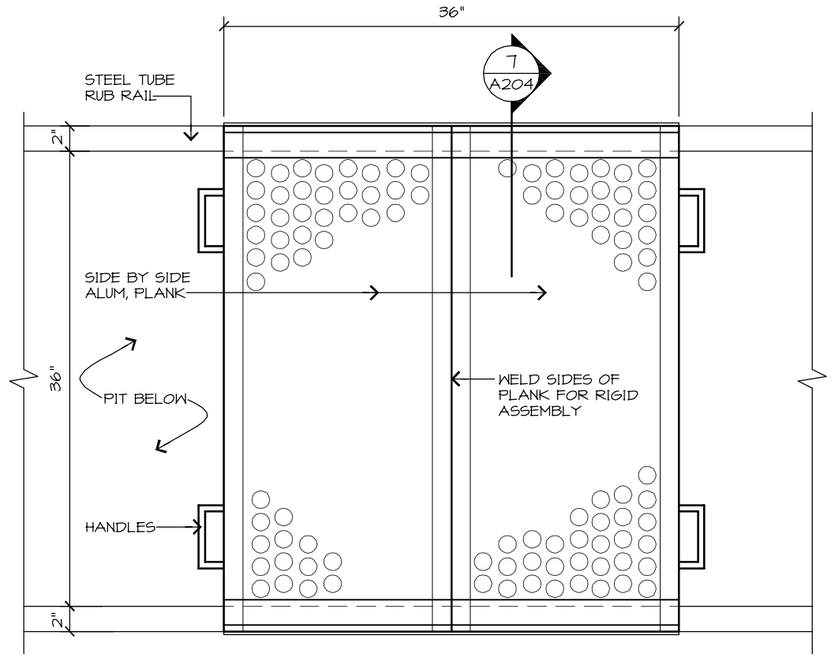
0 .5" 1" 2" 3"



3 GUARD RAIL WALL

1/4"=1'-0"

0 1 2 4 6

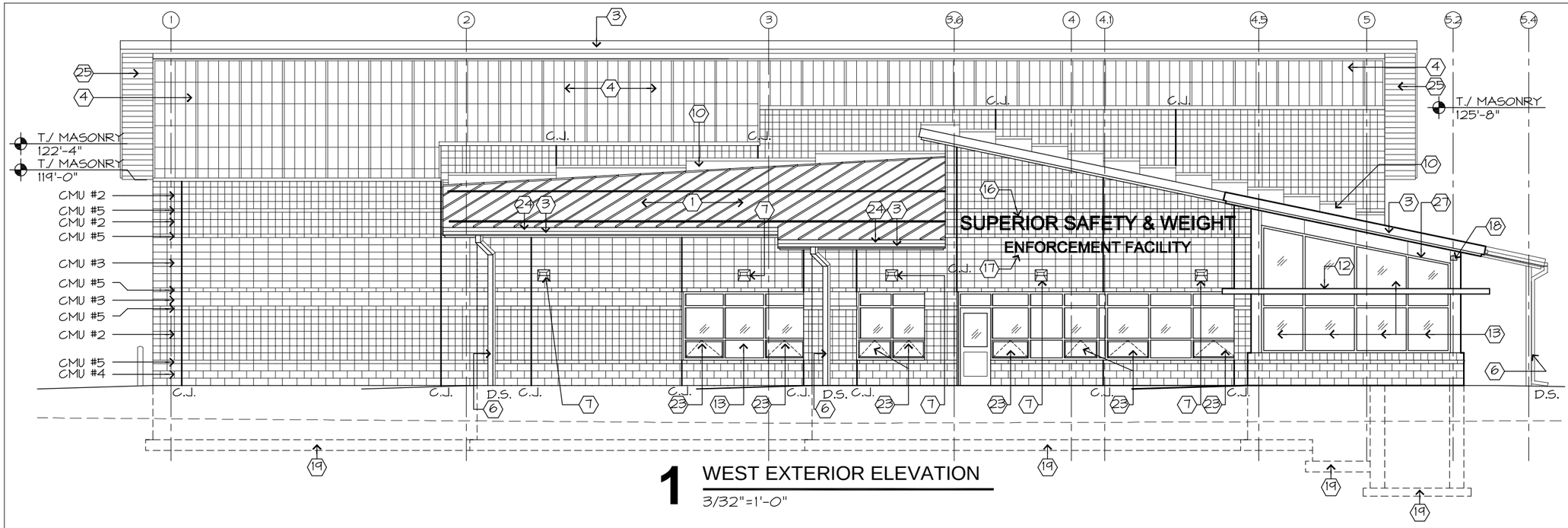


4 MOVABLE PIT BRIDGE PLANK (TYP. OF 2)

1"=1'-0"

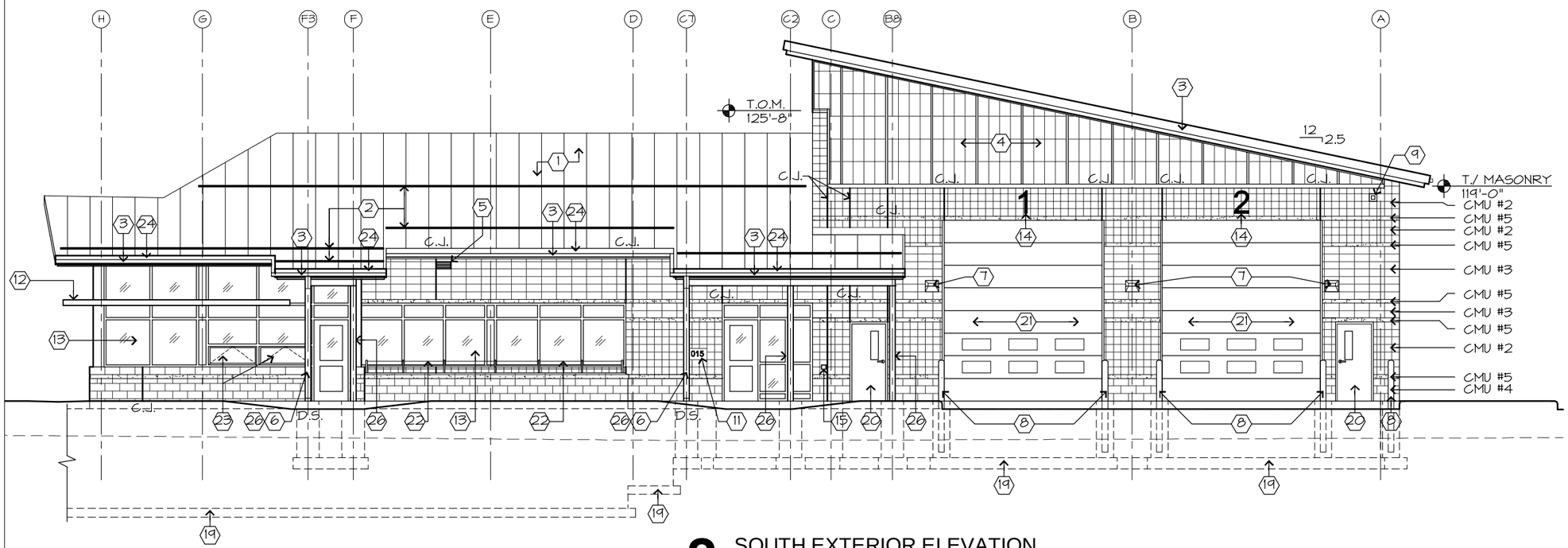
0 3" 6" 1 1.5

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			INSPECTION PIT SAFETY NETTING	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A206



1 WEST EXTERIOR ELEVATION

3/32"=1'-0"



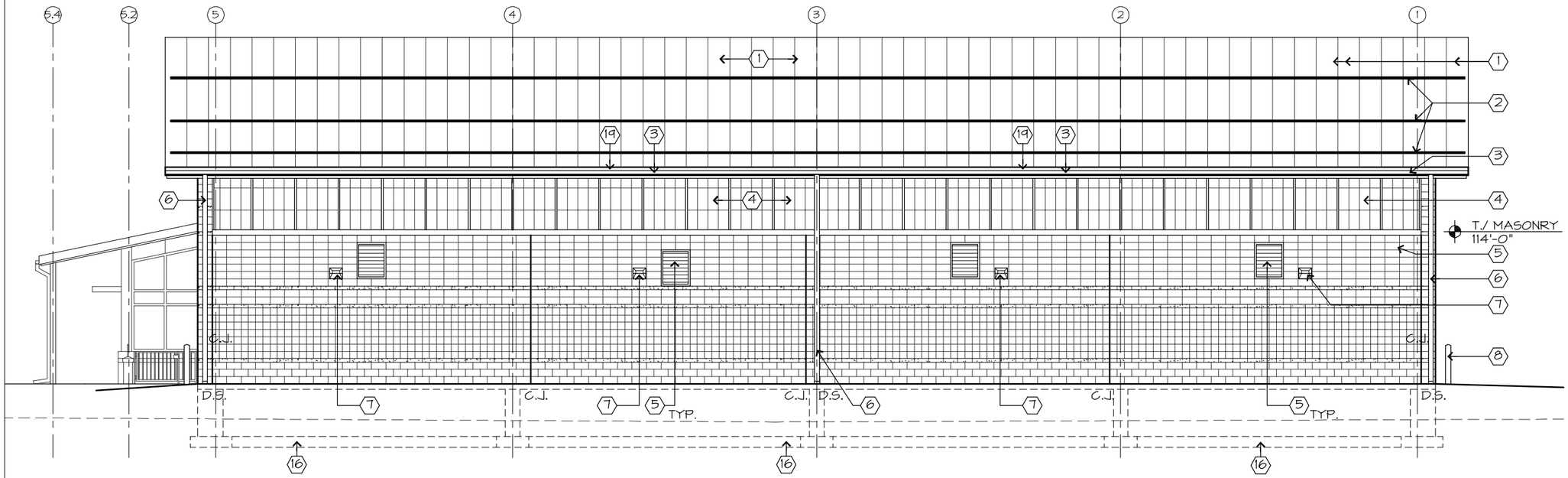
2 SOUTH EXTERIOR ELEVATION

3/32"=1'-0"

ELEVATION KEY NOTES

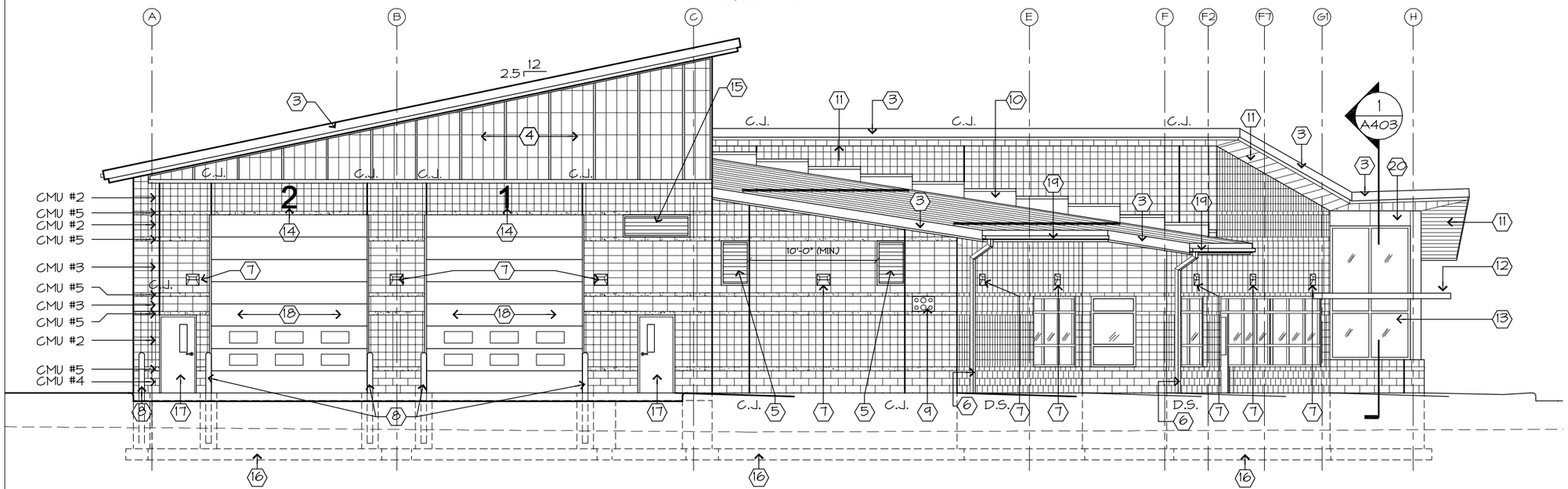
1. STANDING SEAM METAL ROOF PER SECT. 07 41 00.
2. CONTINUOUS STRIPS OF SNOW GUARDS. SEE SECT. 07 41 00.
3. ROOF EDGE FASCIA PER SECT. 07 60 00.
4. INSULATED TRANSLUCENT PANELS PER SECTION 08 84 00.
5. EXHAUST GRILLE. SEE MECH. PLANS.
6. 5"X4" OPEN FACE DOWN SPOUT. PROVIDE CONCRETE SPLASH BLOCK AT DOWN SPOUT. (TYPICAL)
7. EXTERIOR LIGHTING (TYPICAL). REFER TO ELECTRICAL PLANS.
8. PIPE BOLLARD W/ PLASTIC SLEEVE COVER.
9. CCTV. VERIFY LOCATION W/ ELECT. PLANS.
10. PRE-FINISHED STEPPED METAL FLASHING OVER SMOOTH FACED BLOCK.
11. DATE STONE. SEE DETAIL 2/A801. SEE SPECIFICATION.
12. ALUM. LOUVERED SUN SCREEN. PER SPEC SECTION 10 71 13.
13. STOREFRONT FRAMING.
14. 24" H. CAST ALUMINUM NUMERALS W/ REFLECTIVE PAINT. SEE SPEC.
15. DOOR OPERATOR PUSH PLATE.
16. 15" H. CAST ALUMINUM LETTERS. SEE SPEC. SECT. 10 14 19.
17. 12" H. CAST ALUMINUM LETTERS. SEE SPEC. SECT. 10 14 19.
18. WEATHERPROOF SPEAKER. SEE ELECTRICAL PLANS.
19. CAST-IN-PLACE CONC. FOUNDATION. SEE STRUCTURAL PLANS.
20. GALV. HOLLOW METAL DOOR. PAINT.
21. SECTIONAL OVERHEAD DOOR
22. STAINLESS STEEL CABLE RAILS. SEE 4/402.
23. OPERABLE WINDOW SET IN STOREFRONT FRAME.
24. PRE. FIN. METAL GUTTER
25. PRE. FIN. METAL SOFFIT
26. GALV. TUBE STEEL COLUMN. PAINT.
27. ALUM. COMPOSITE PANEL PER SPEC SECTION 07 42 43.

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			BUILDING ELEVATIONS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 2 4 8 12	SHEET NO: A301



1 EAST EXTERIOR ELEVATION

3/32"=1'-0"



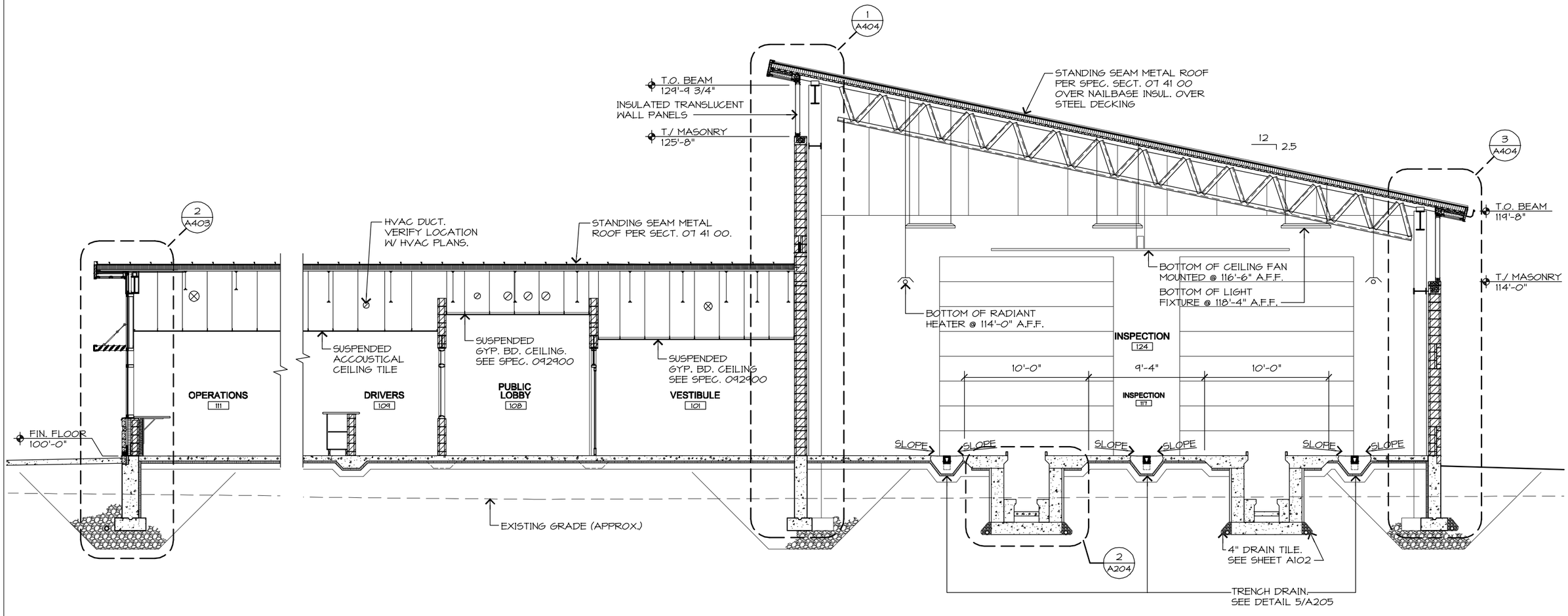
2 NORTH EXTERIOR ELEVATION

3/32"=1'-0"

ELEVATION KEY NOTES

1. STANDING SEAM METAL ROOF PER SECT. 07 41 00.
2. CONTINUOUS STRIPS OF SNOW GUARDS. SEE SECT. 07 41 00.
3. PREFIN. METAL ROOF EDGE FASCIA PER SECT. 07 60 00.
4. INSULATED TRANSLUCENT PANELS PER SECTION 08 84 00.
5. OUTSIDE AIR LOUVER. SEE HVAC PLANS.
6. 5"X4" OPEN FACE DOWNSPOUT. PROVIDE CONCRETE SPLASH BLOCK AT DOWN SPOUT. (TYPICAL)
7. EXTERIOR LIGHTING (TYPICAL). REFER TO ELECTRICAL PLANS.
8. PIPE BOLLARD W/ PLASTIC SLEEVE COVER.
9. INSTALL WIRE ACCESS PANEL (FURNISHED BY OWNER).
10. PRE-FINISHED STEPPED METAL FLASHING OVER SMOOTH FACED BLOCK.
11. PREFIN. GALV. STEEL SOFFIT PANELS PER SECTION 07 46 00.
12. ALUM. LOUVERED SUN SCREEN. SEE SECT. 10 71 13.
13. ALUM. STORE FRONT FRAMING
14. 24" H. CAST ALUMINUM LETTERS W/ REFLECTIVE PAINT. SEE SPEC.
15. INTAKE AIR LOUVER. SEE HVAC PLANS.
16. CAST-IN-PLACE CONC. FOUNDATION. SEE STRUCT. PLANS.
17. GALV. HOLLOW METAL DOOR. PAINT.
18. SECTIONAL OVERHEAD DOOR
19. PRE. FIN. METAL GUTTER.
20. ALUM. COMPOSITE PANEL PER SECTION 10 42 43.

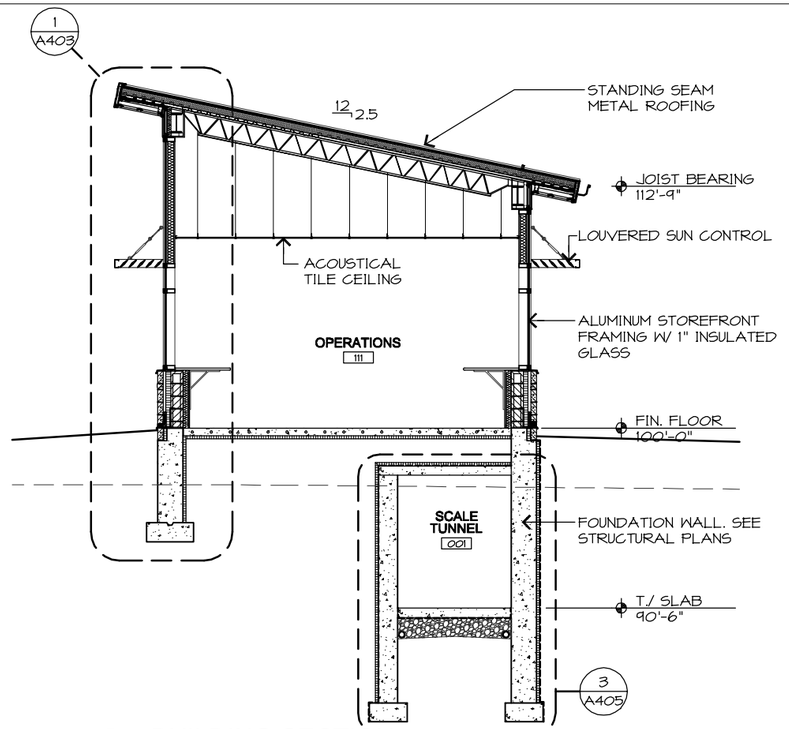
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			BUILDING ELEVATIONS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 2 4 8 12	SHEET NO: A302



1 BUILDING SECTION

1/8"=1'-0"

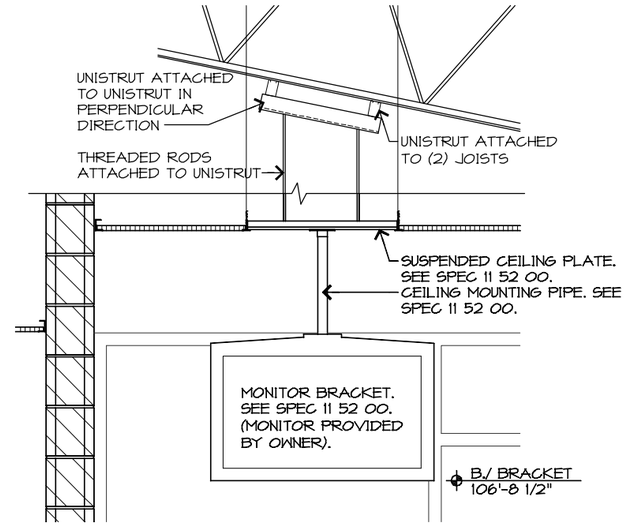
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			BUILDING SECTION	DATE: 04/1/14	FINAL PS&E	
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 2 4 8 12	SHEET NO: A401	94



2 BUILDING SECTION

1/8"=1'-0"

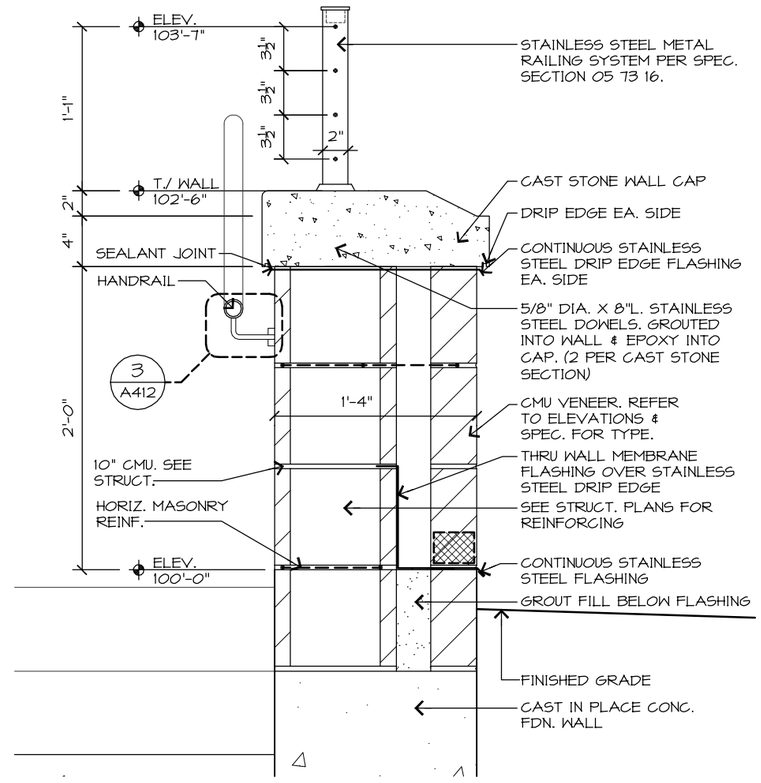
0 2 4 8 12



3 WEATHER MONITOR MOUNTING DETAIL

1/2"=1'-0"

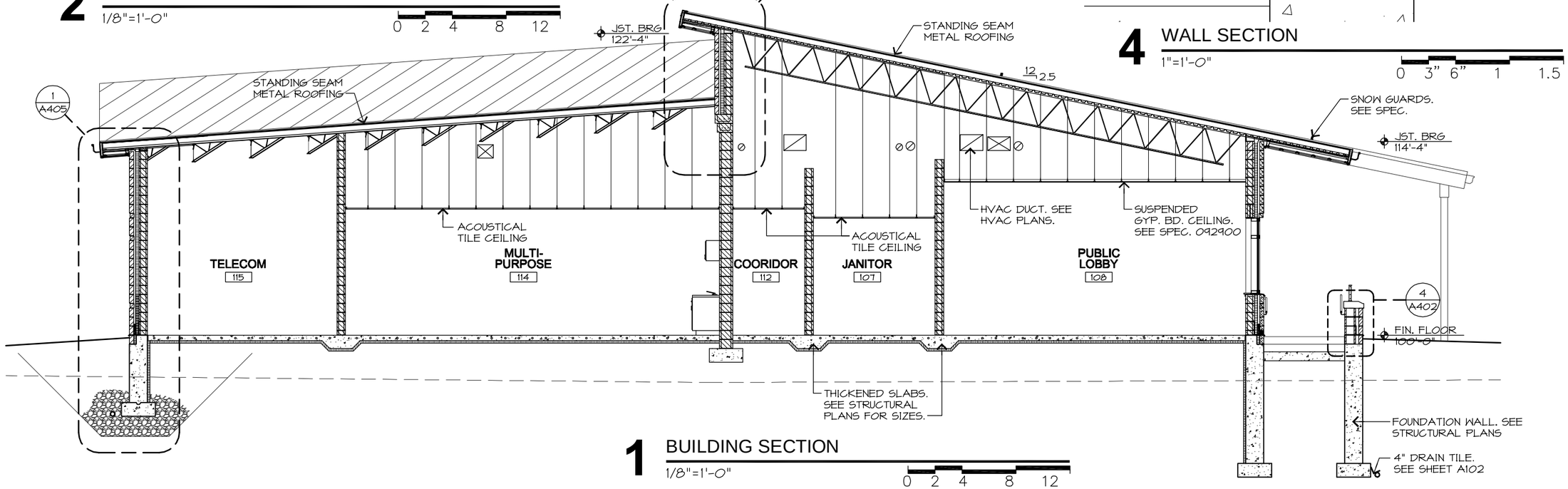
0 6" 1 2 3



4 WALL SECTION

1"=1'-0"

0 3" 6" 1 1.5

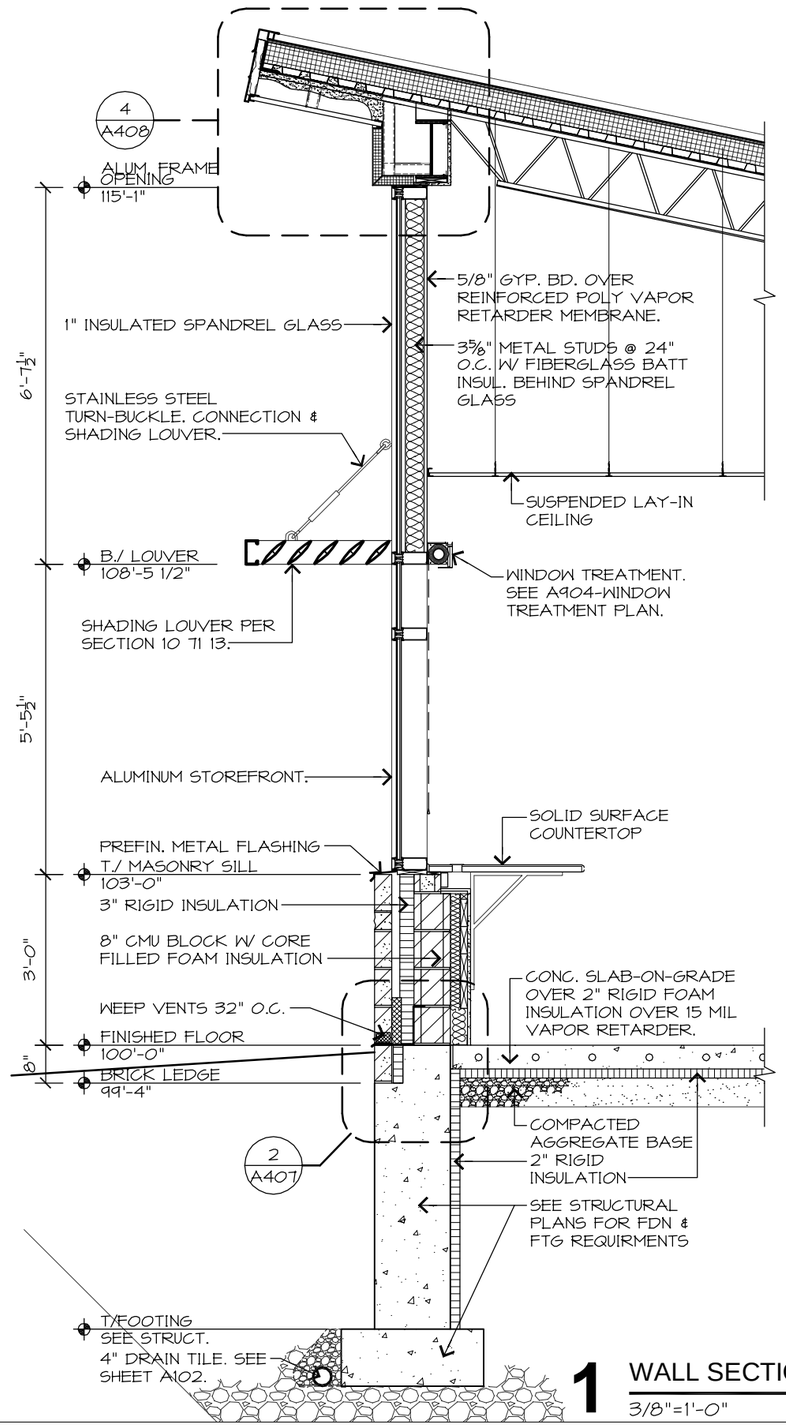


1 BUILDING SECTION

1/8"=1'-0"

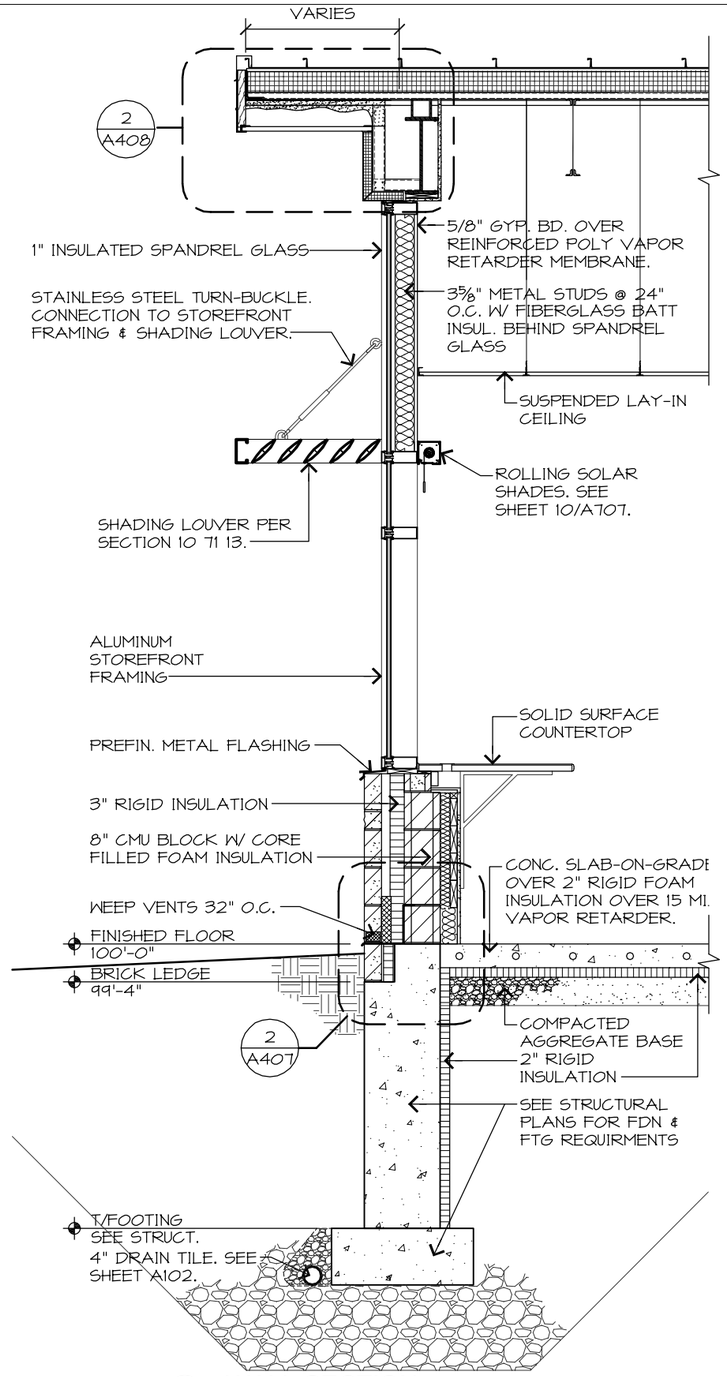
0 2 4 8 12

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			BUILDING SECTION		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A402	95



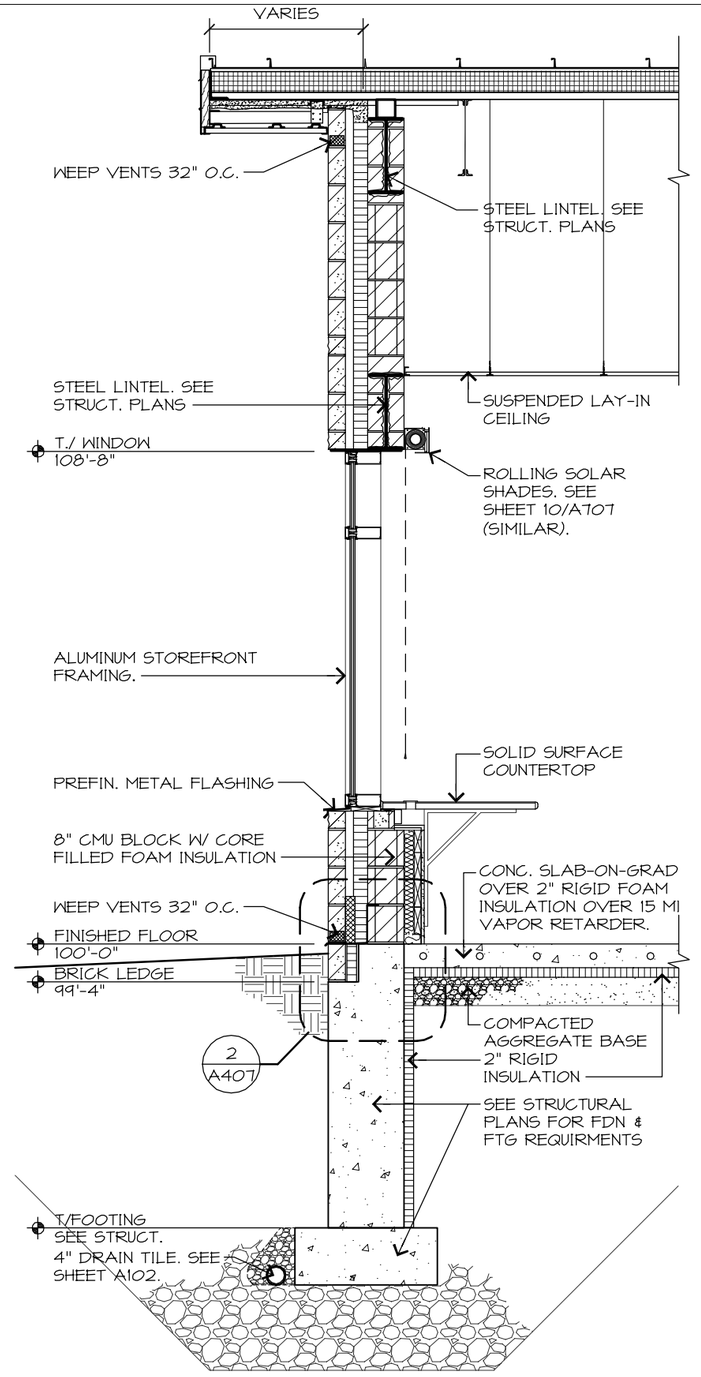
1 WALL SECTION

3/8"=1'-0"



2 WALL SECTION

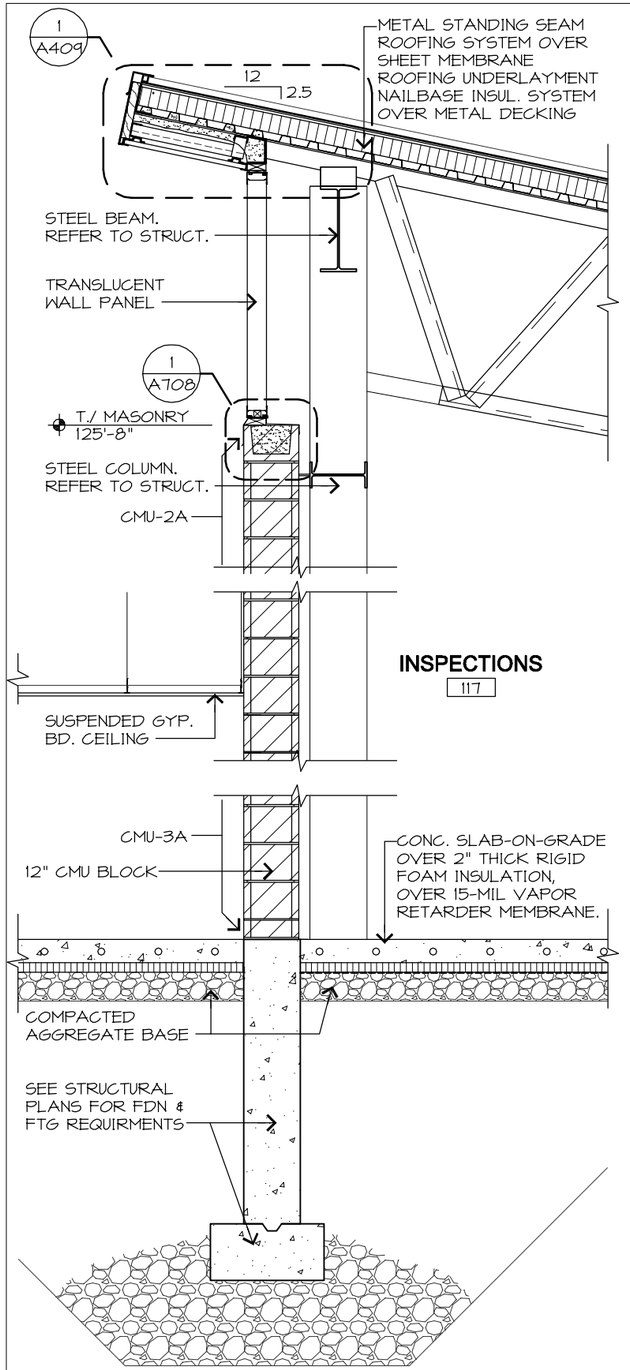
3/8"=1'-0"



3 WALL SECTION

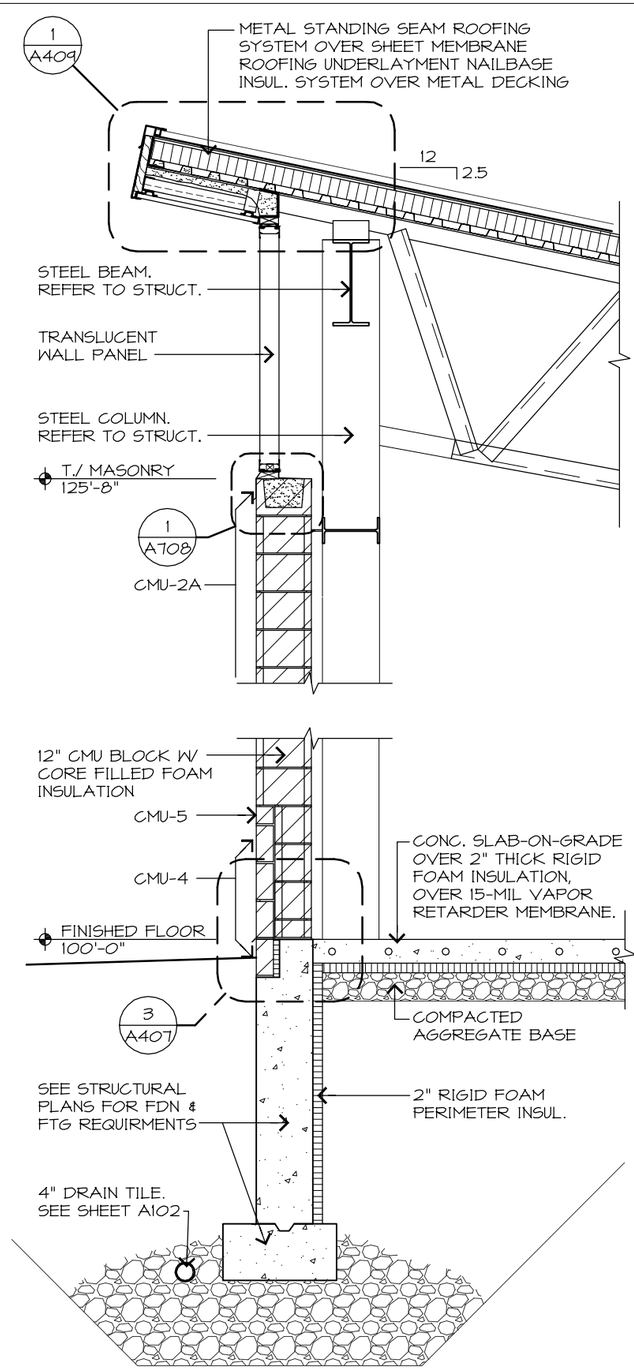
3/8"=1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			WALL SECTIONS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 8" 16" 32" 48"	SHEET NO: A403



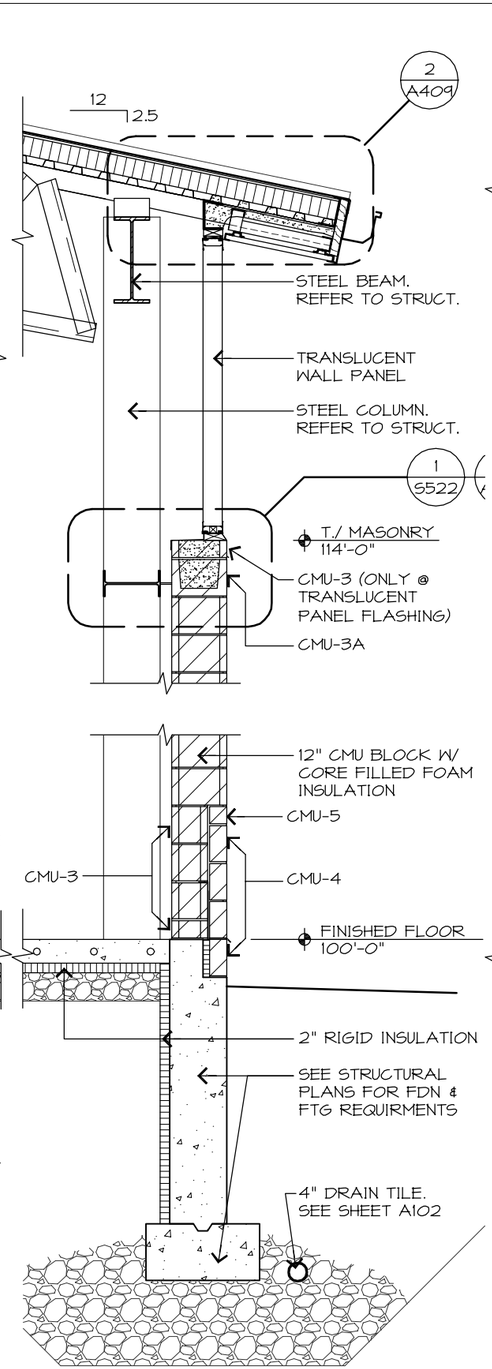
1 WALL SECTION

3/8"=1'-0"



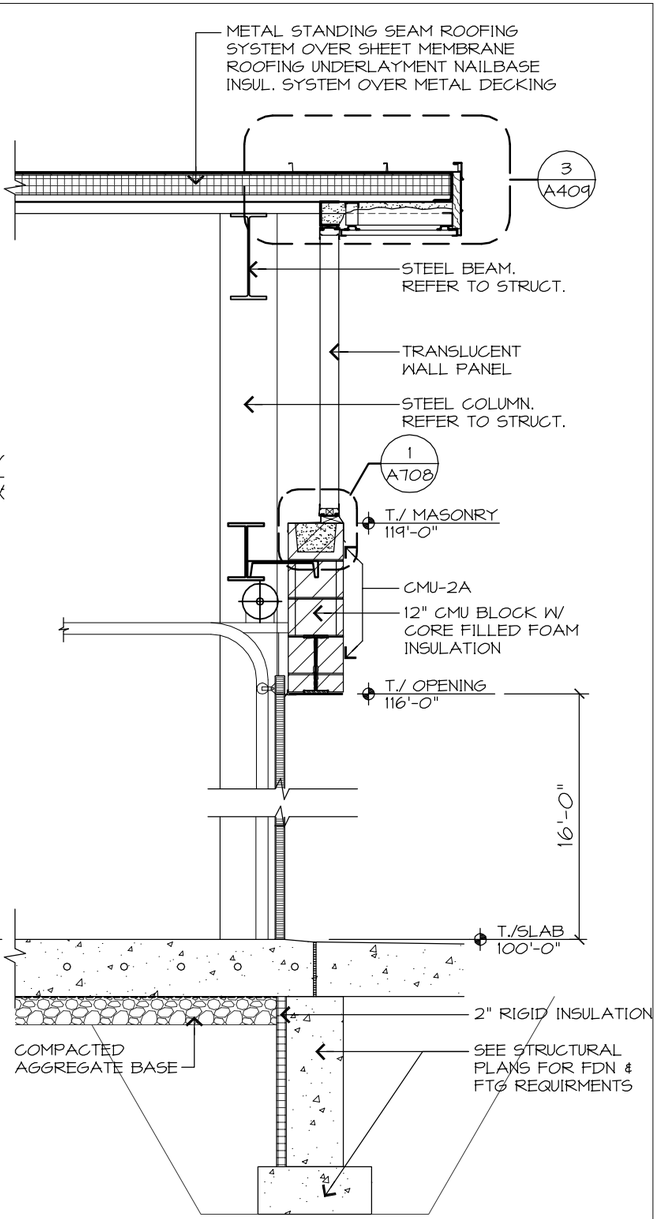
2 WALL SECTION

3/8"=1'-0"



3 WALL SECTION

3/8"=1'-0"



4 WALL SECTION

3/8"=1'-0"

INSPECTIONS

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PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI

WALL SECTIONS

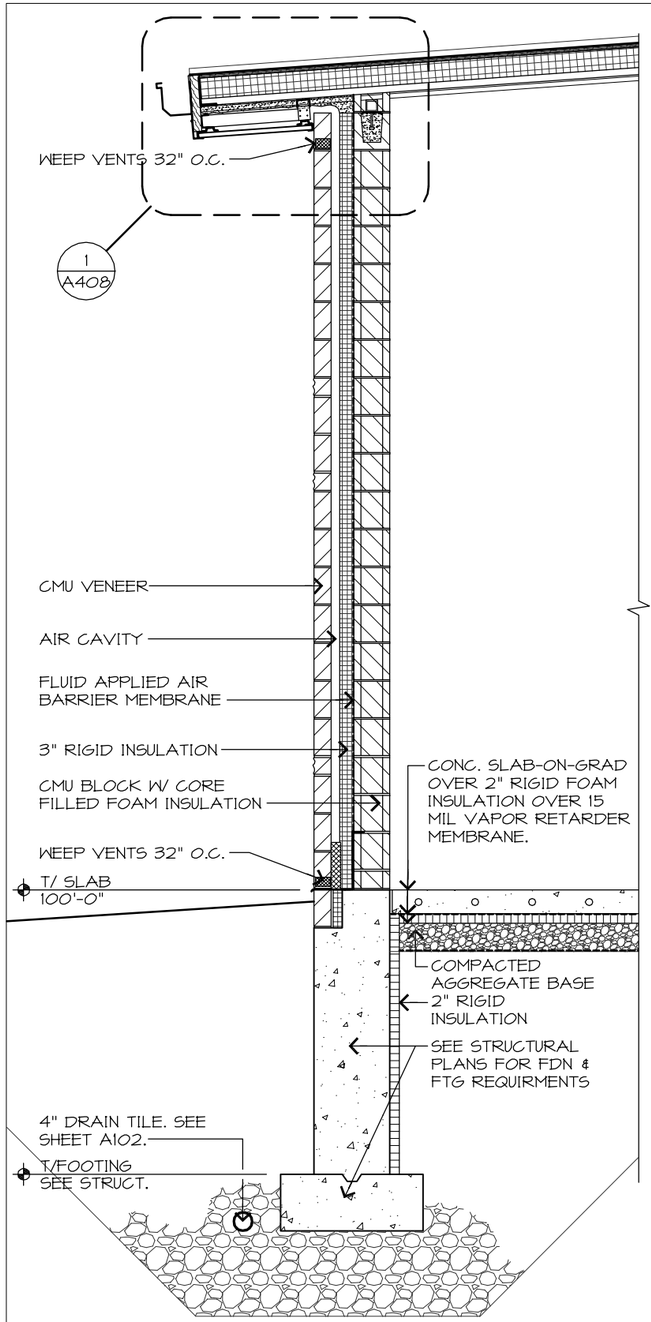
DATE: 04/1/14 | FINAL PS&E

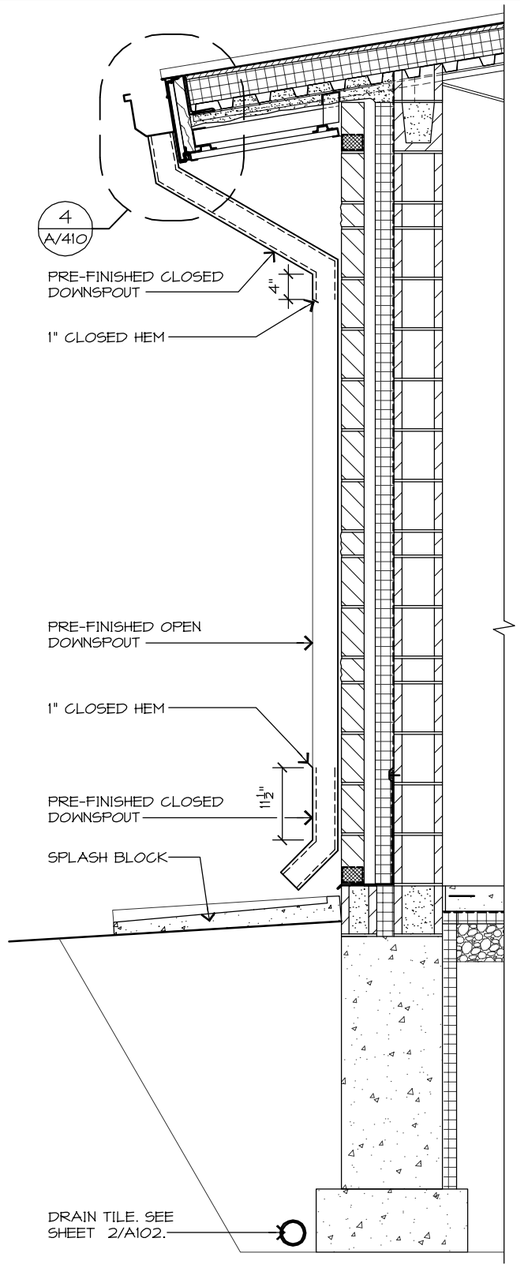
STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS

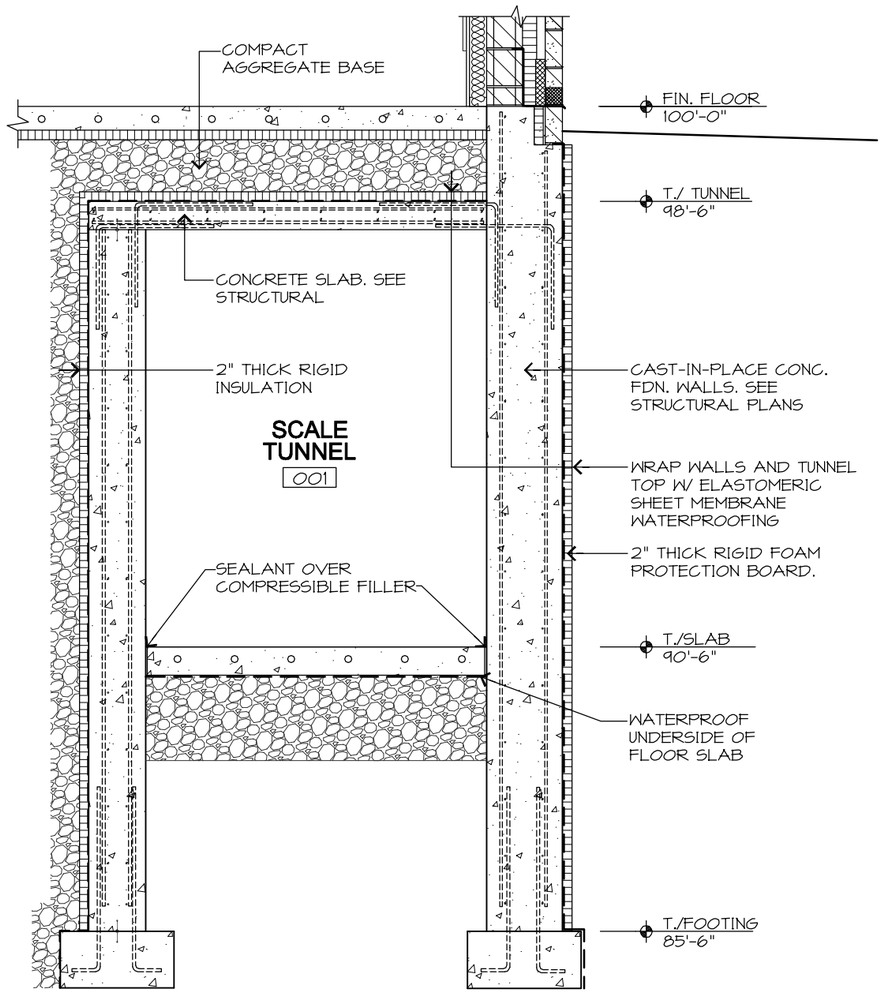
SUPERIOR SAFETY & WEIGHT FACILITY NO. 72

SCALE: 0 8" 16" 32" 48"

SHEET NO: A404





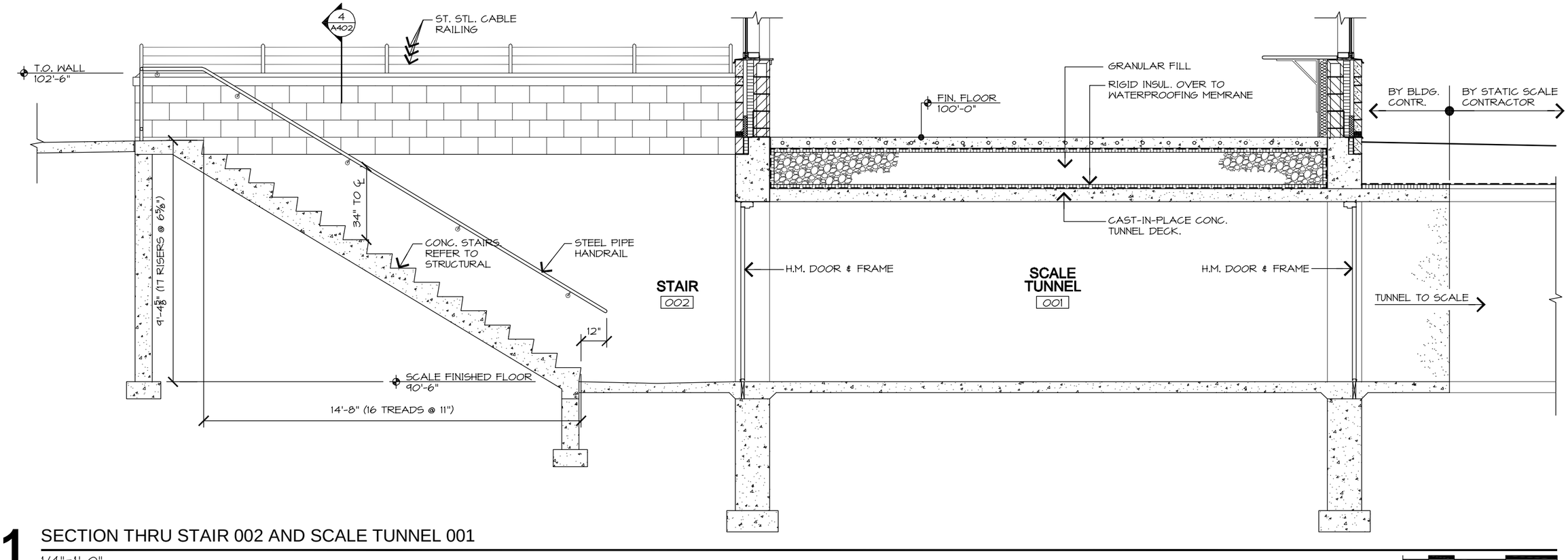


1 WALL SECTIONS
3/8"=1'-0"
0 8" 16" 32" 48"

2 WALL SECTION AT DOWNSPOUT
1/2"=1'-0"
0 6" 1 2 3

3 SCALE TUNNEL SECTION
3/8"=1'-0"
0 8" 16" 32" 48"

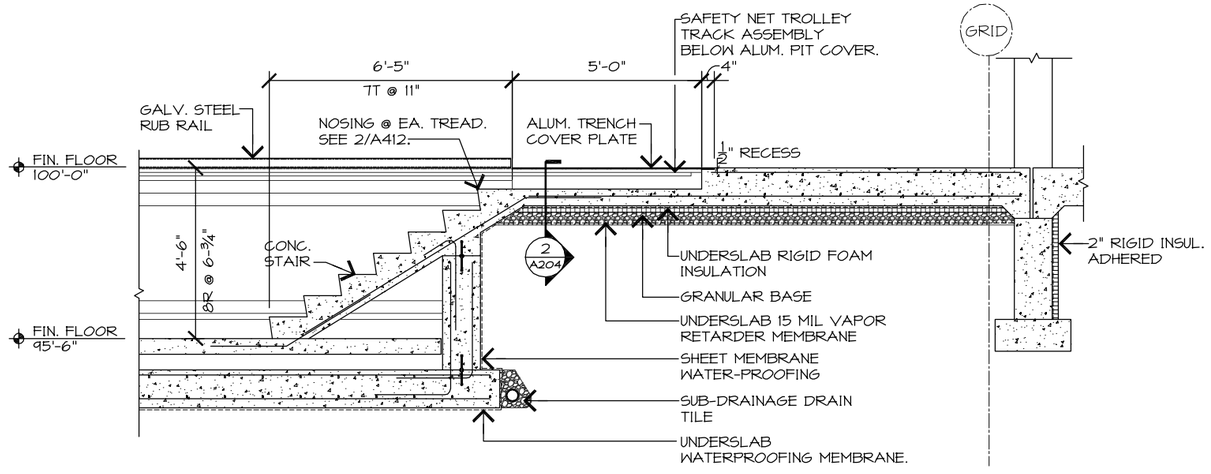
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SECTIONS & DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 8" 16" 32" 48"	SHEET NO: A405	98



1 SECTION THRU STAIR 002 AND SCALE TUNNEL 001

1/4"=1'-0"

0 1 2 4 6

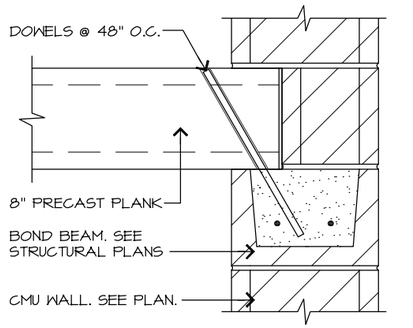


2 PIT ACCESS SECTION

1/4"=1'-0"

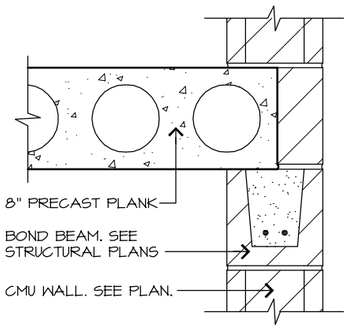
0 1 2 4 6

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A406	99



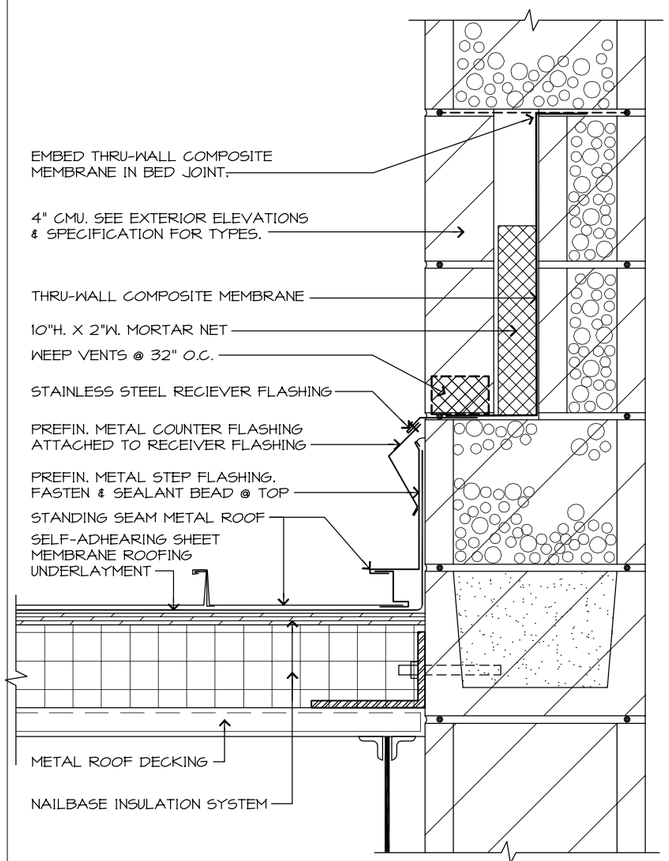
4 P/C PLANK BRG DETAIL

1"=1'-0"



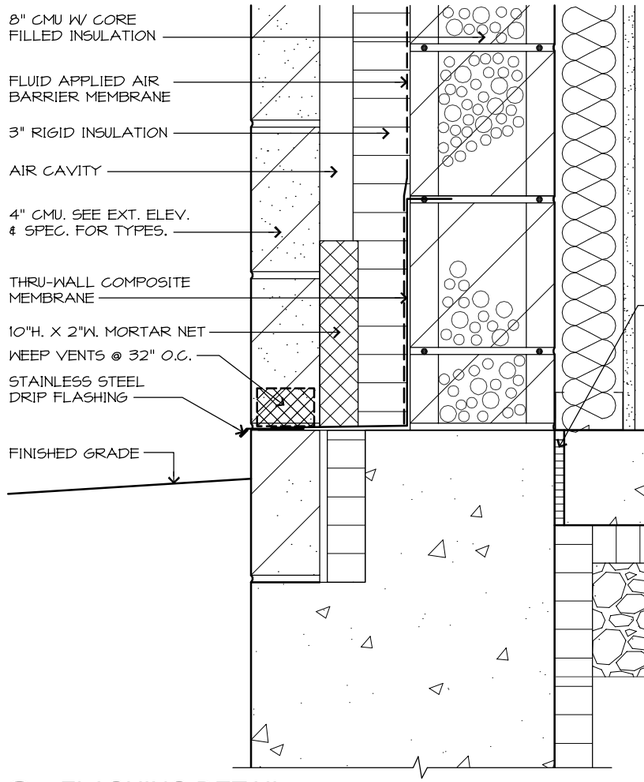
5 P/C PLANK BRG DETAIL

1"=1'-0"



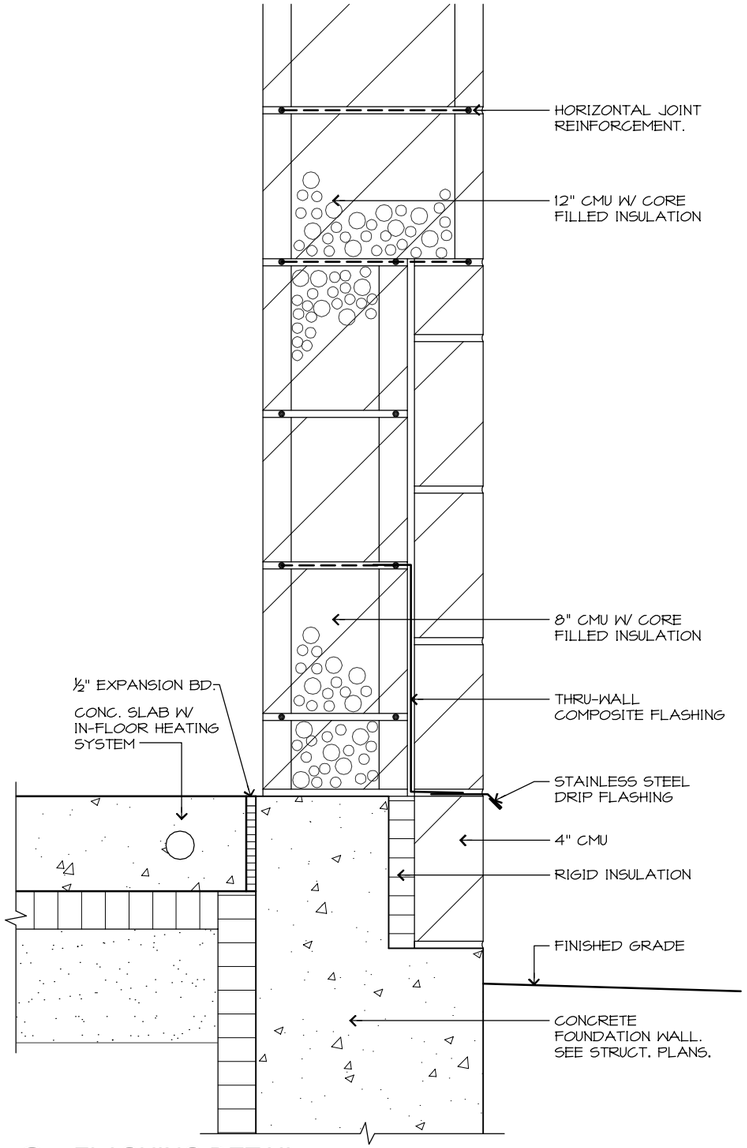
1 FLASHING DETAIL

1 1/2"=1'-0"



2 FLASHING DETAIL

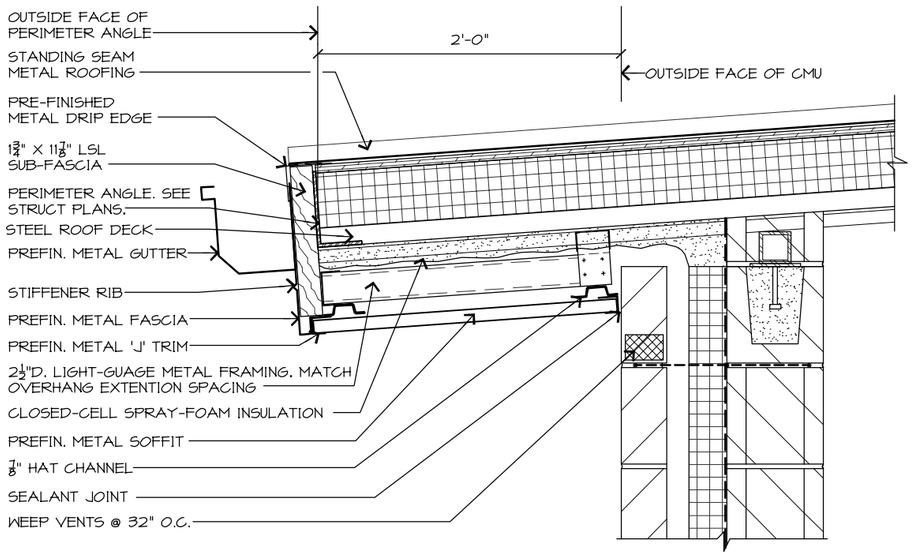
1 1/2"=1'-0"



3 FLASHING DETAIL

1 1/2"=1'-0"

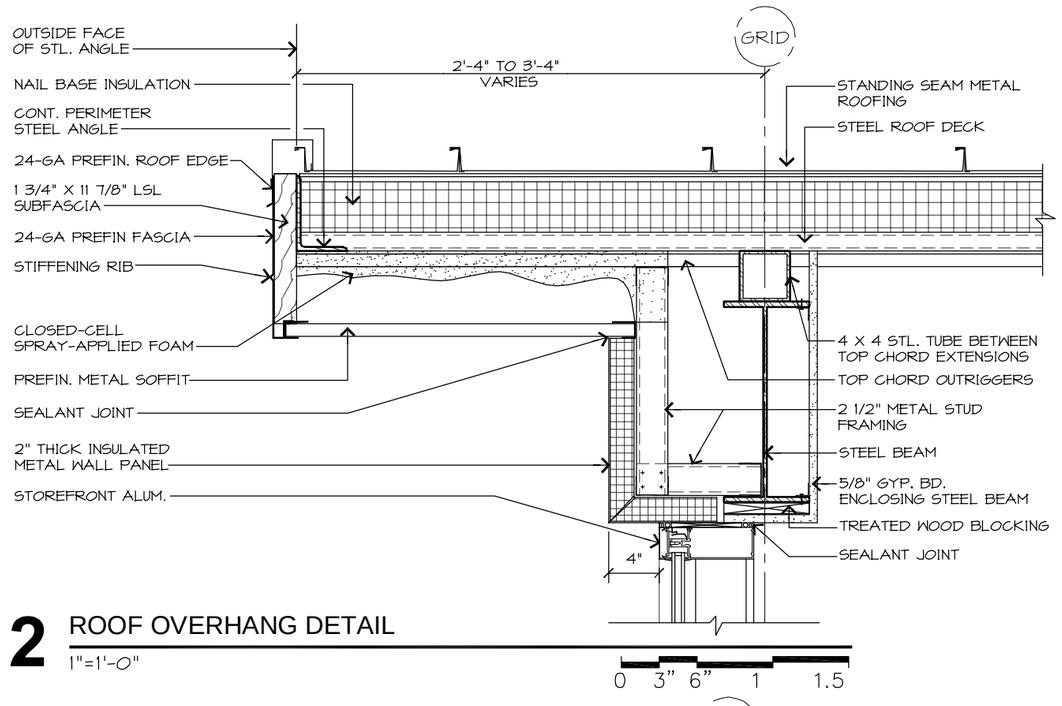
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DETAILS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SHEET NO: A407	100



1 ROOF OVERHANG DETAIL

1"=1'-0"

0 3" 6" 1 1.5



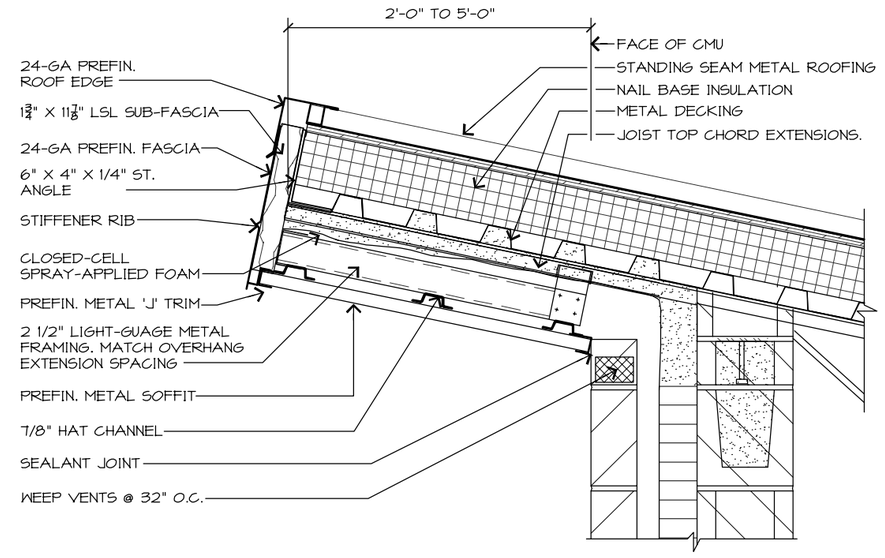
2 ROOF OVERHANG DETAIL

1"=1'-0"

0 3" 6" 1 1.5

GENERAL NOTES

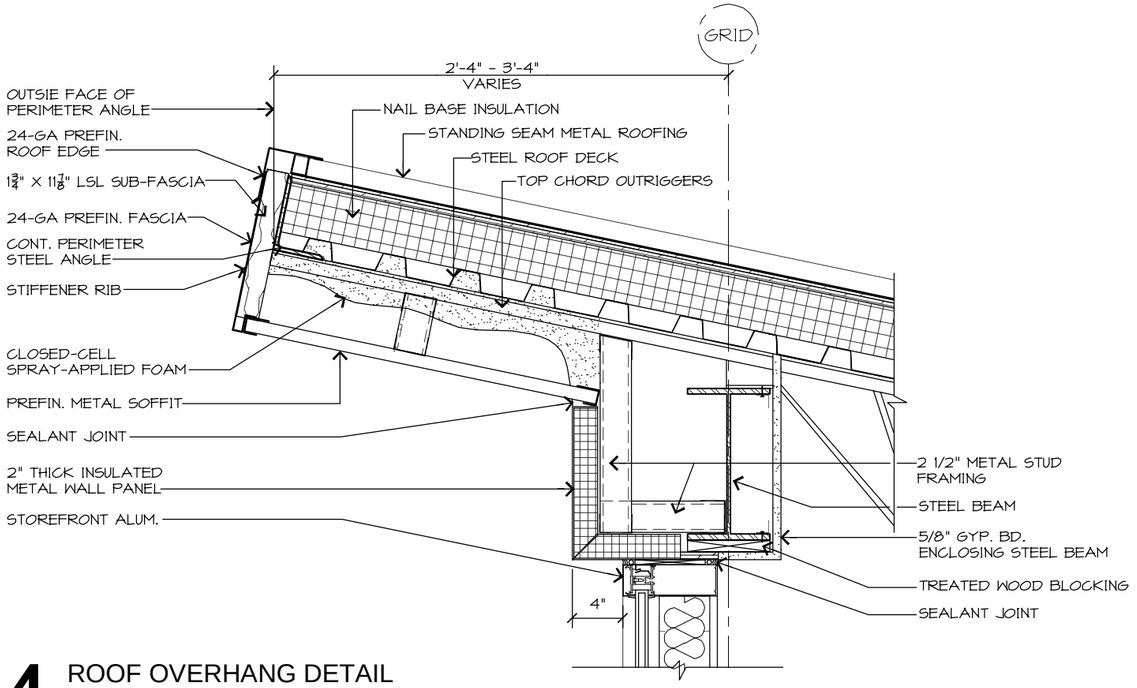
A. SEE A410 FOR ENLARGED ROOF EDGE DETAILS



3 ROOF OVERHANG DETAIL

1"=1'-0"

0 3" 6" 1 1.5

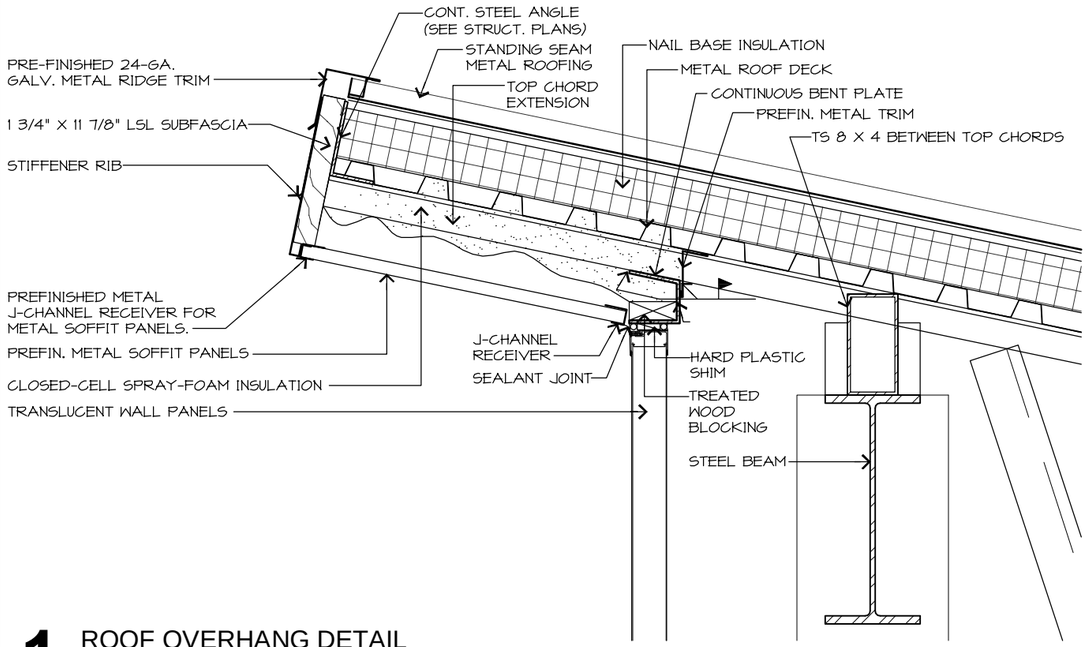


4 ROOF OVERHANG DETAIL

1"=1'-0"

0 3" 6" 1 1.5

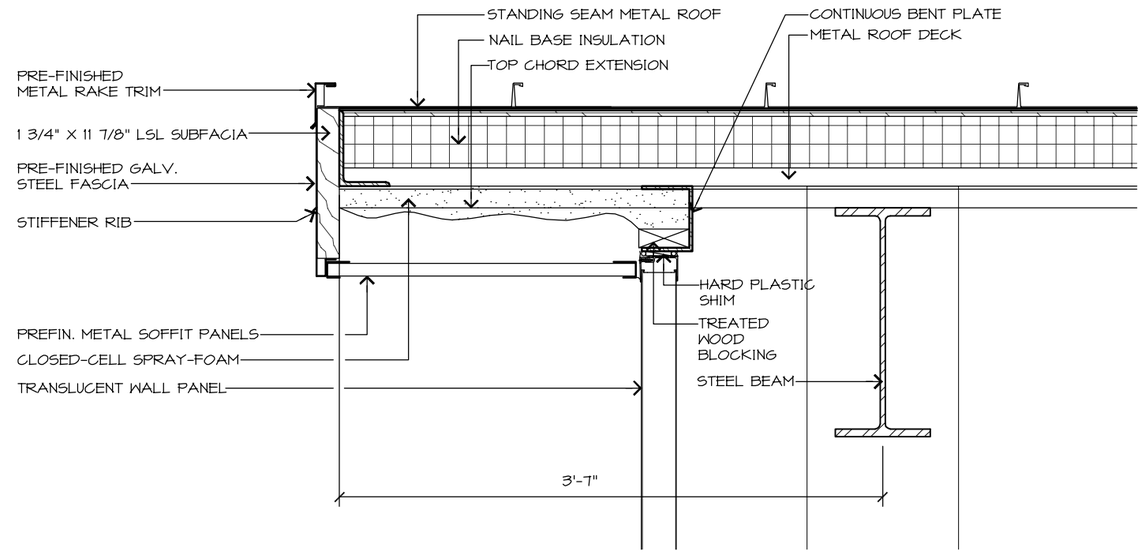
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SECTIONS & DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A408	101



1 ROOF OVERHANG DETAIL

1"=1'-0"

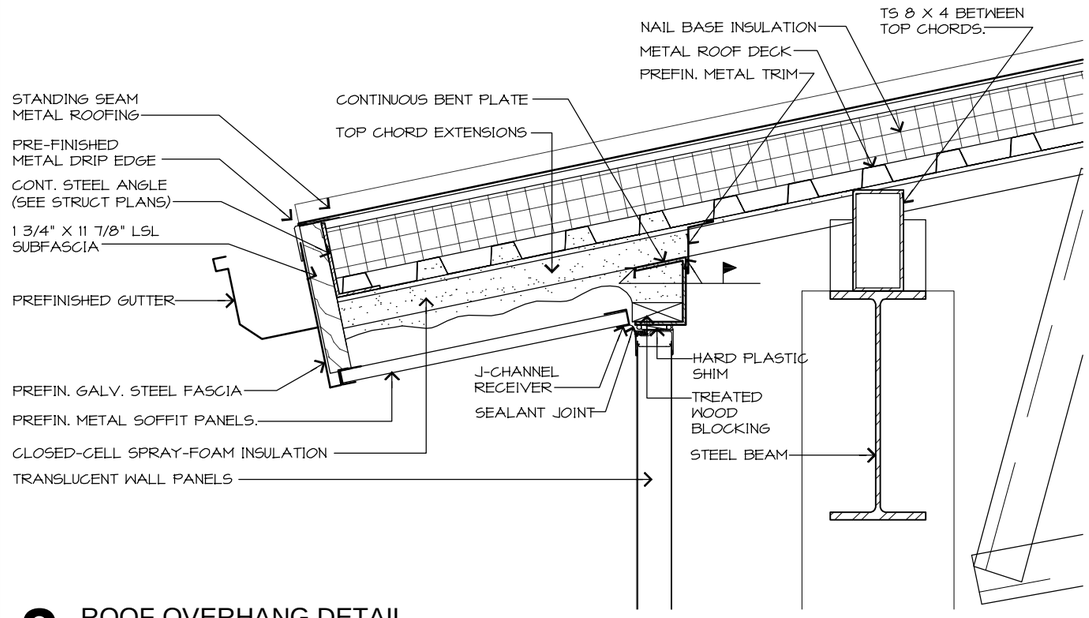
0 3" 6" 1 1.5



3 ROOF OVERHANG DETAIL

1"=1'-0"

0 3" 6" 1 1.5



2 ROOF OVERHANG DETAIL

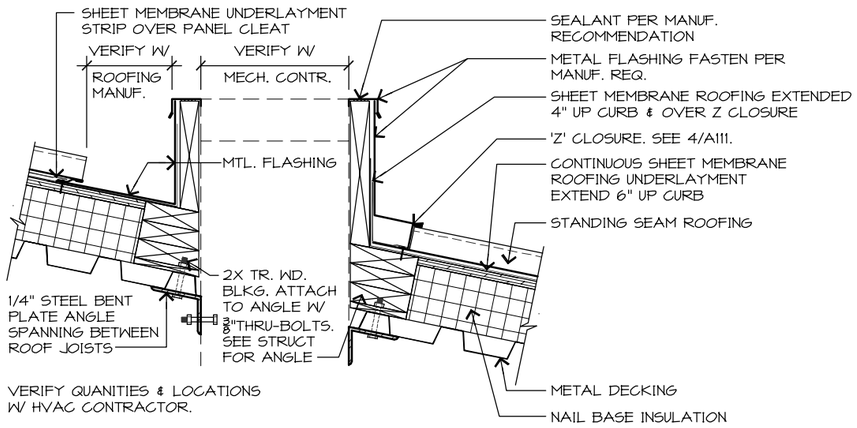
1"=1'-0"

0 3" 6" 1 1.5

GENERAL NOTES

A. SEE A410 FOR ENLARGED ROOF EDGE DETAILS

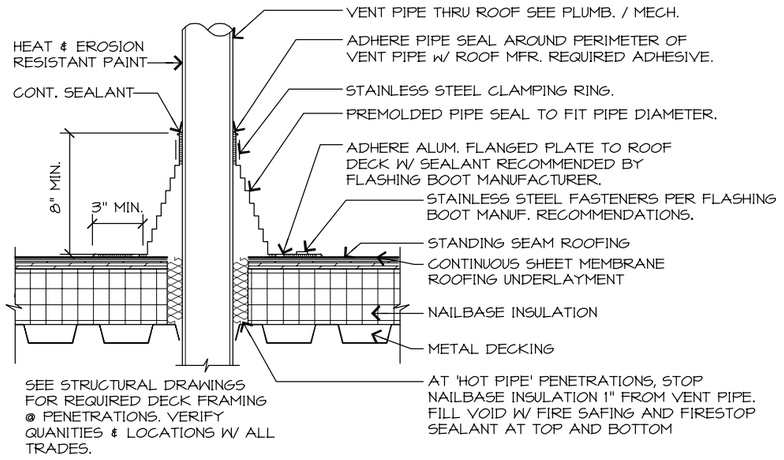
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SECTIONS & DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A409	102



1 ROOF CURB DETAIL

1"=1'-0"

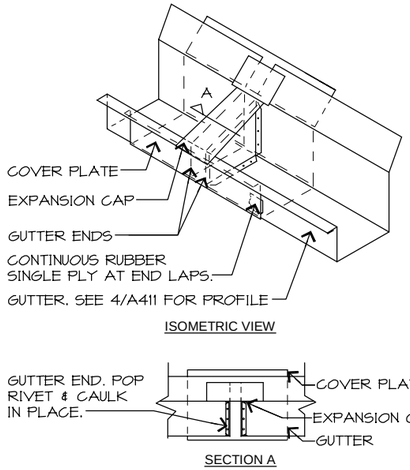
0 3" 6" 1 1.5



2 ROOF PENETRATION DETAIL

1"=1'-0"

0 3" 6" 1 1.5



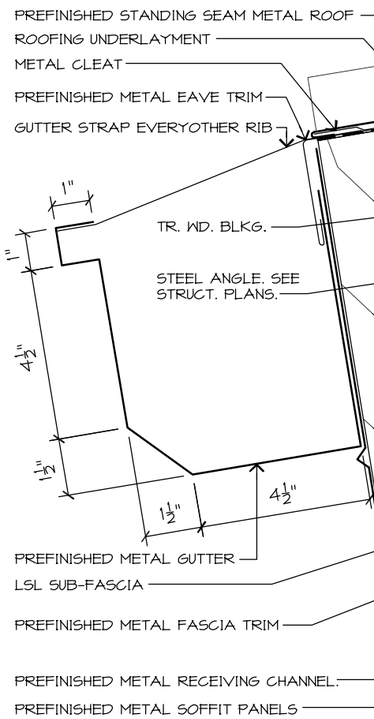
ISOMETRIC VIEW

SECTION A

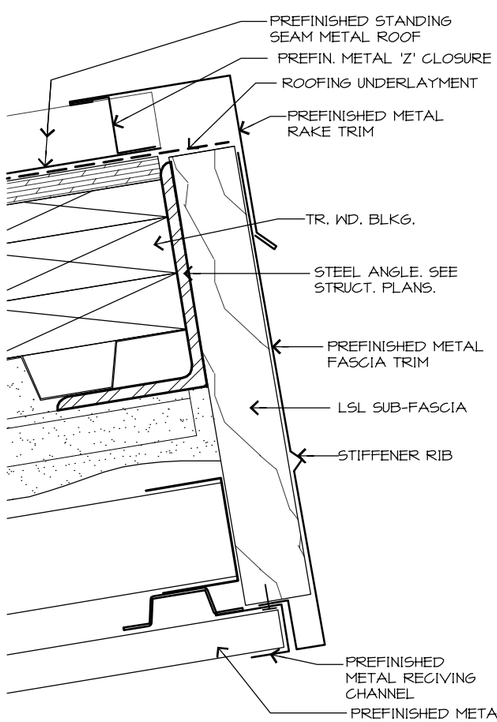
3 GUTTER EXPANSION JOINT DET.

1/2"=1'-0"

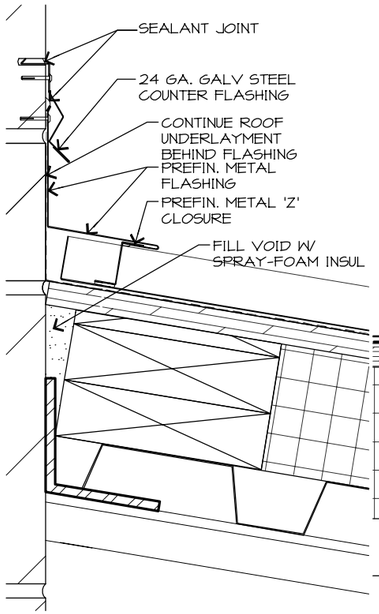
0 6" 1 2 3



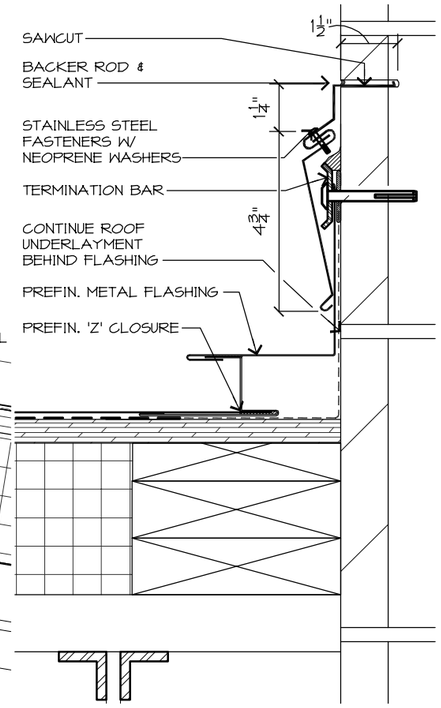
LOW-SIDE ROOF EDGE DETAIL



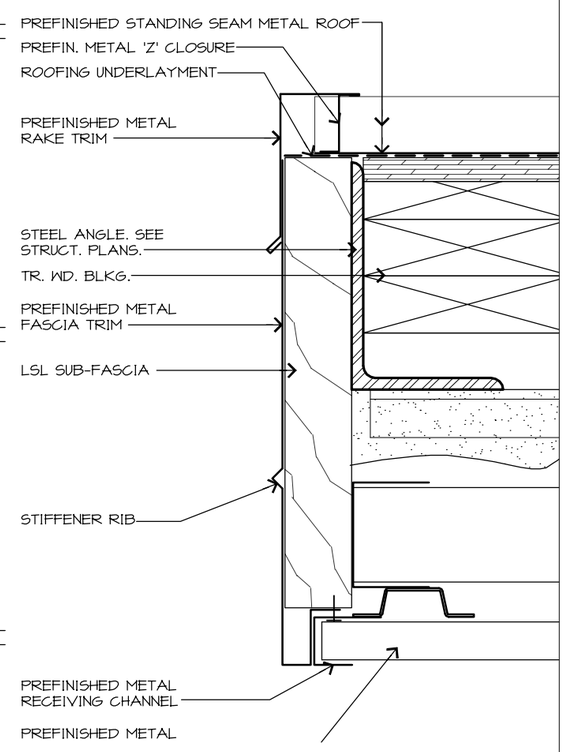
HIGH-SIDE ROOF EDGE DETAIL



HIGH-SIDE ROOF TRANSITION DETAIL



SIDEWALL ROOF TRANSITION DETAIL



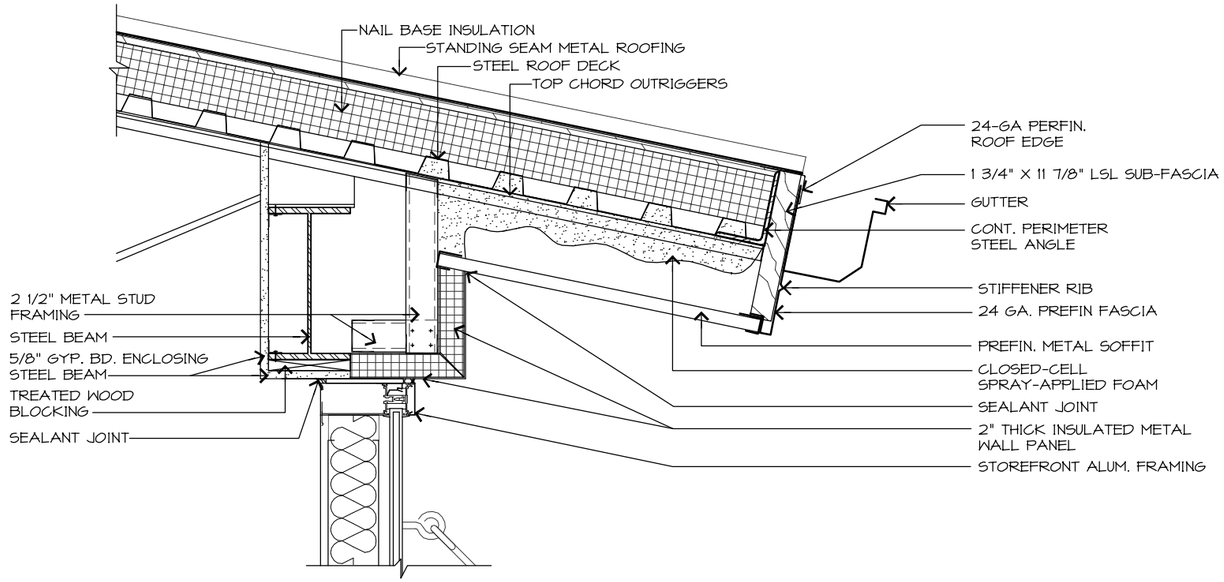
RAKE DETAIL

4 ENLARGED ROOF EDGE DETAILS

3"=1'-0"

0 1" 2" 4" 6"

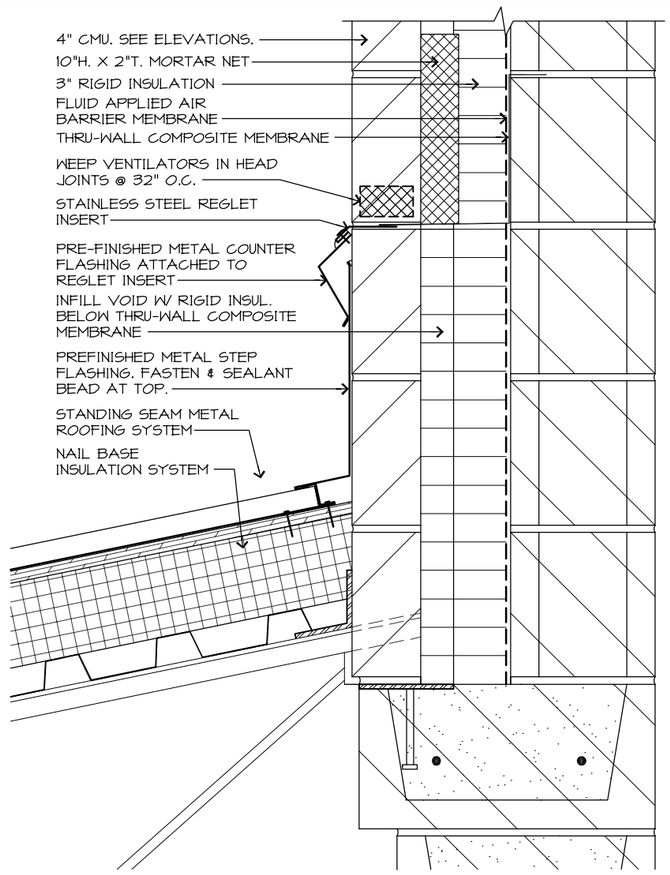
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ROOF DETAILS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A410



2 ROOF OVERHANG DETAIL

1"=1'-0"

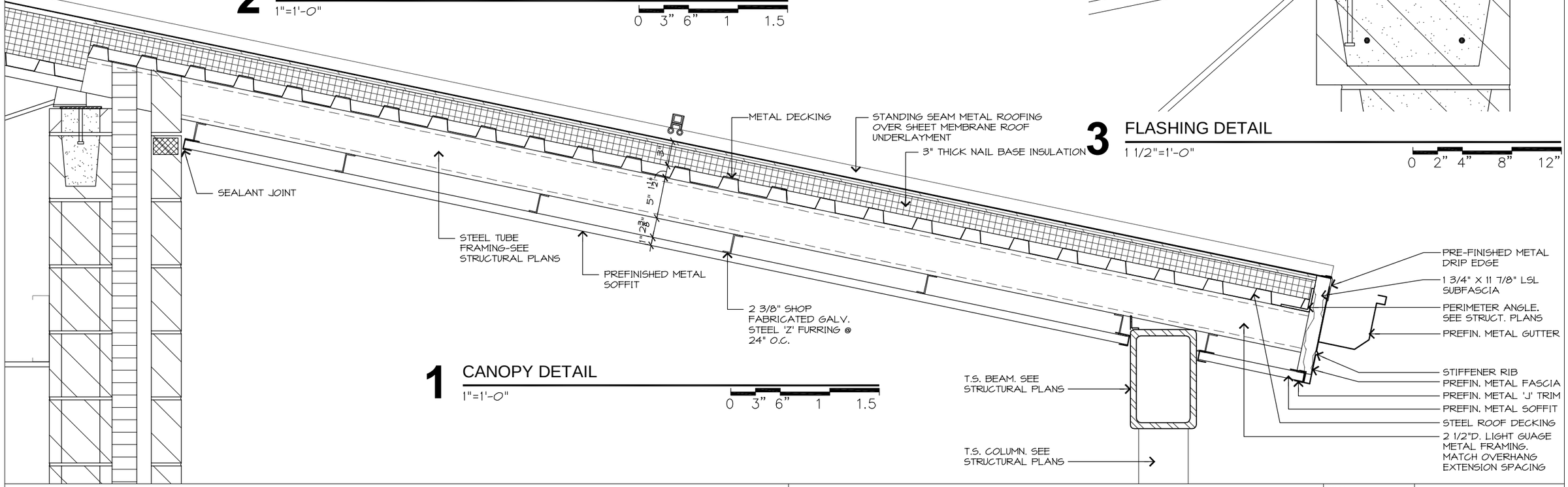
0 3" 6" 1 1.5



3 FLASHING DETAIL

1 1/2"=1'-0"

0 2" 4" 8" 12"

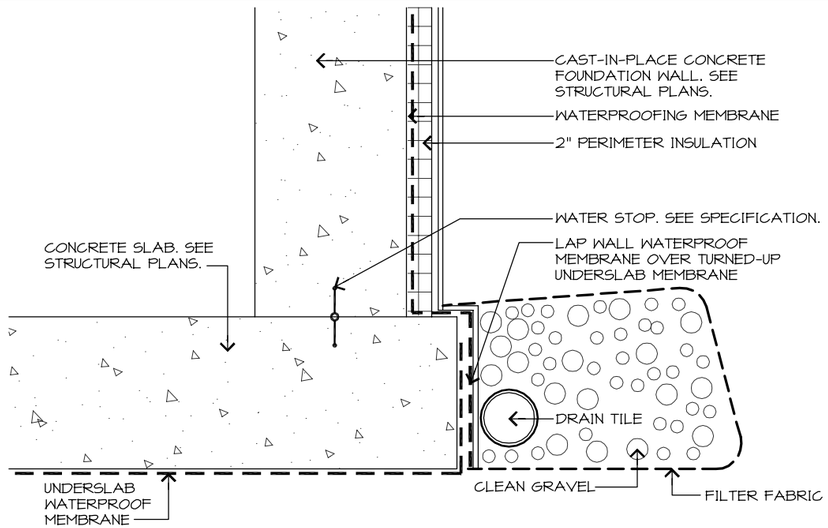


1 CANOPY DETAIL

1"=1'-0"

0 3" 6" 1 1.5

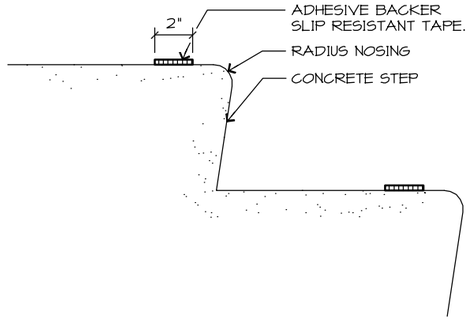
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SECTIONS & DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A411	104



1 FOUNDATION WATERPROOFING DRAIN TILE DETAIL

1"=1'-0"

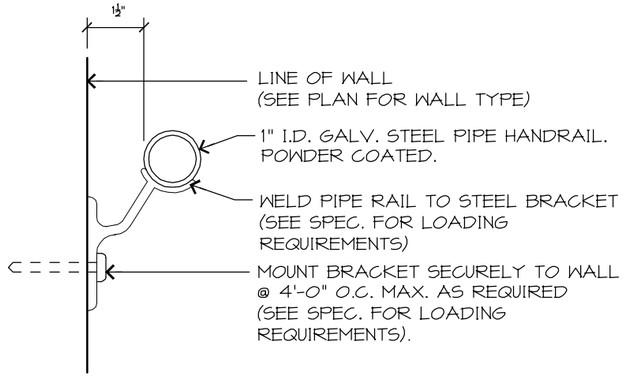
0 3" 6" 1 1.5



2 SLIP RESISTANT NOSING

1 1/2"=1'-0"

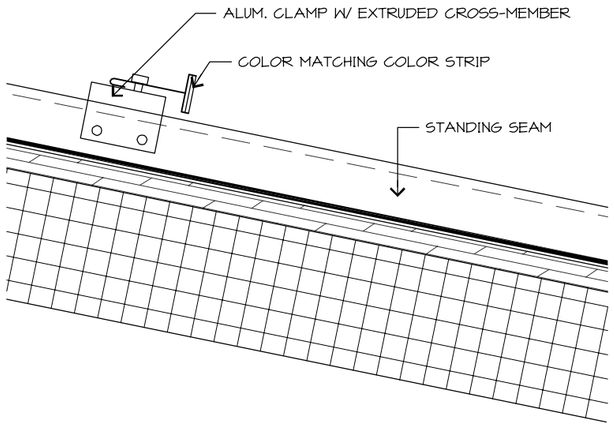
0 3" 6" 1 1.5



3 SURFACE MOUNTED PIPE RAILING ANCHOR

3"=1'-0"

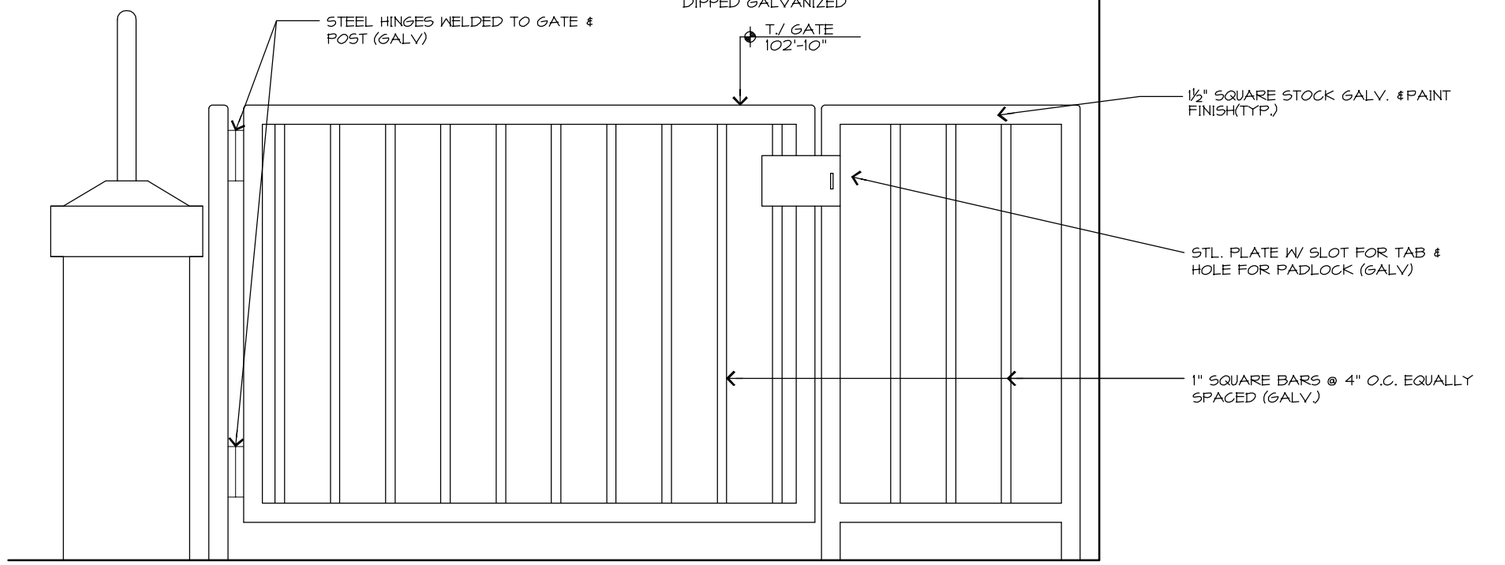
0 1" 2" 4" 6"



4 SNOW GUARD DETAIL

3"=1'-0"

0 1" 2" 4" 6"

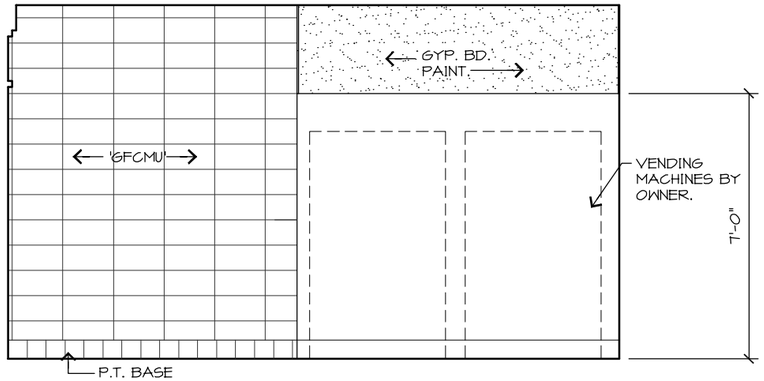


5 STATIC SCALE GATE DETAIL

1"=1'-0"

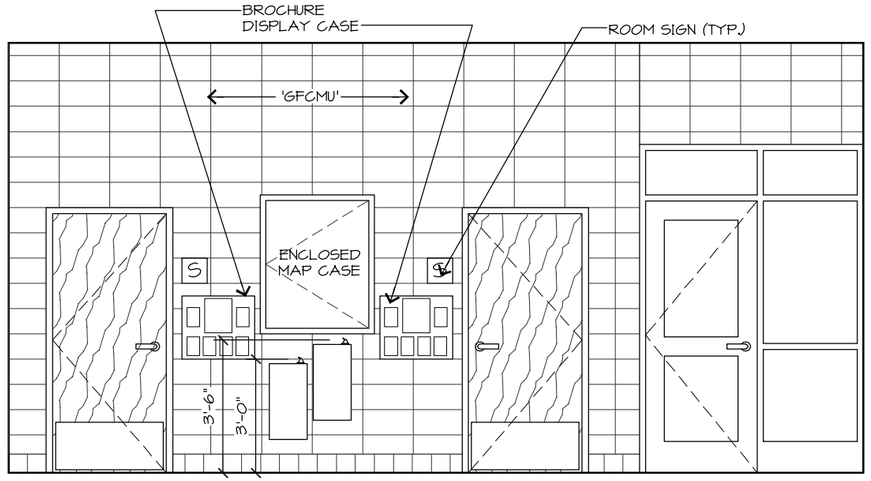
0 1" 2" 4" 6"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DETAILS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 4 8 16 24	SHEET NO: A412



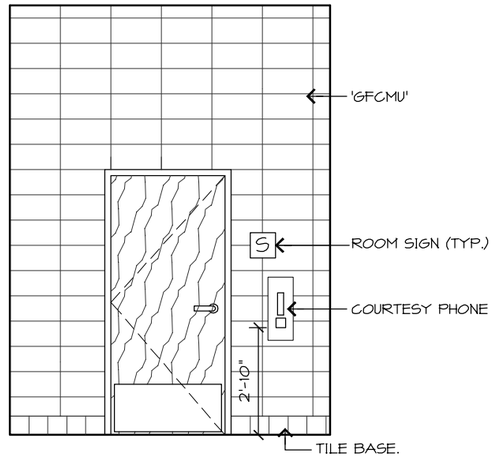
1 NORTH ELEVATION @ VESTIBULE 101

1/4"=1'-0"



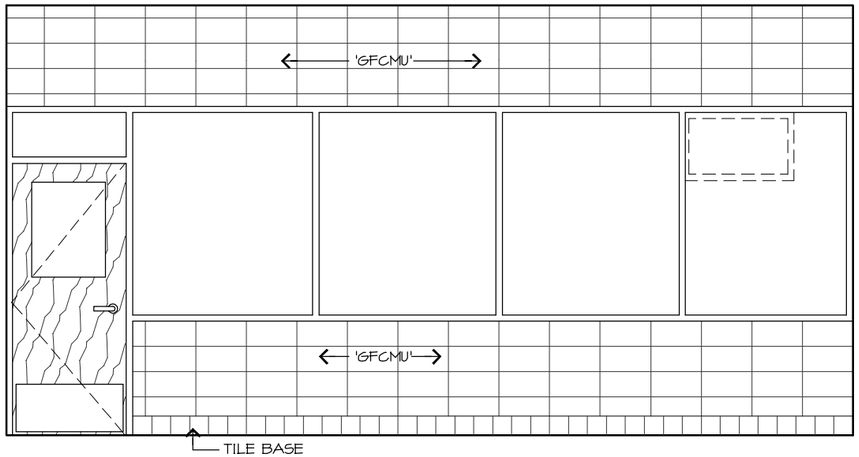
2 EAST ELEVATION @ PUBLIC LOBBY 108

1/4"=1'-0"



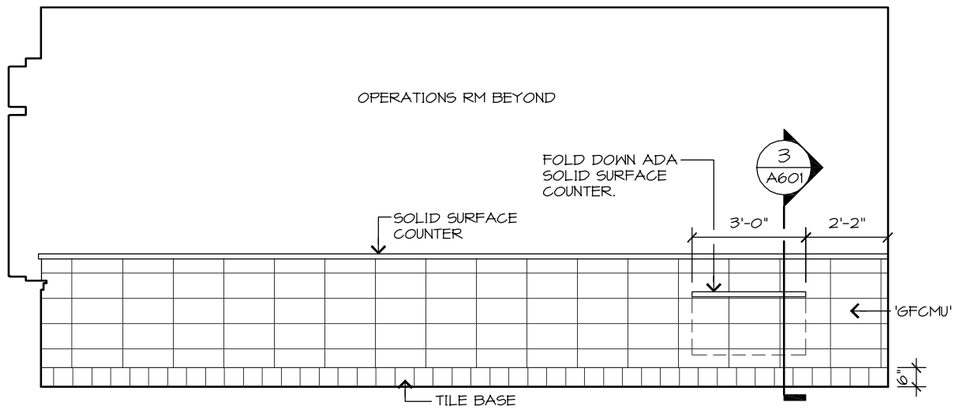
3 NORTH ELEVATION @ LOBBY 108

1/4"=1'-0"



4 WEST ELEVATION @ PUBLIC LOBBY 108

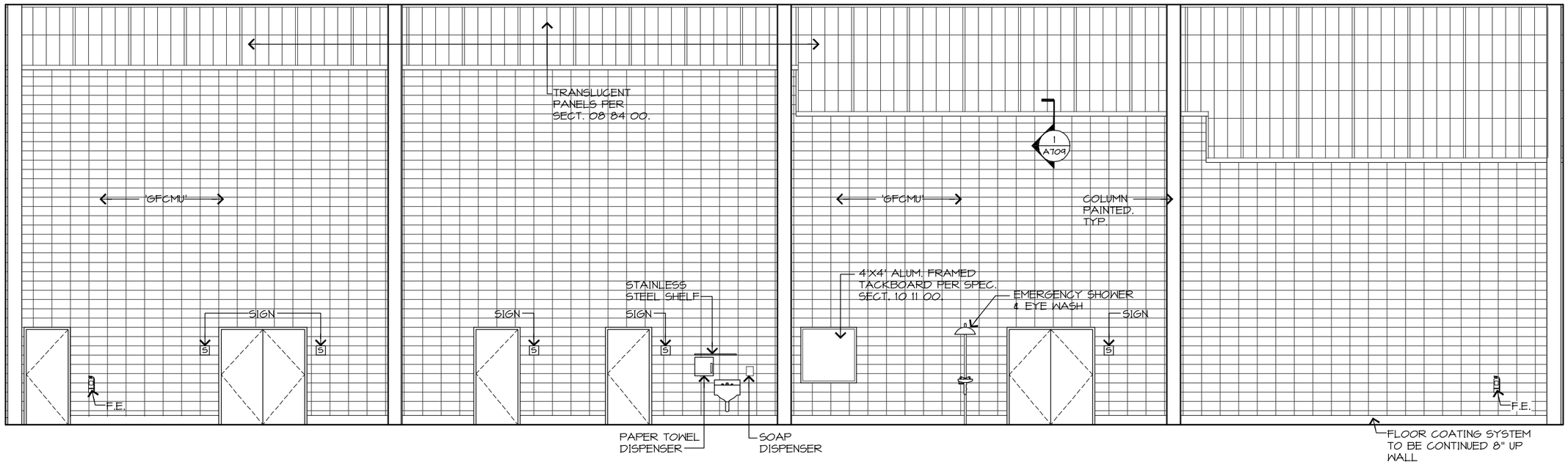
1/4"=1'-0"



5 WEST ELEVATION @ DRIVERS ROOM 109

1/4"=1'-0"

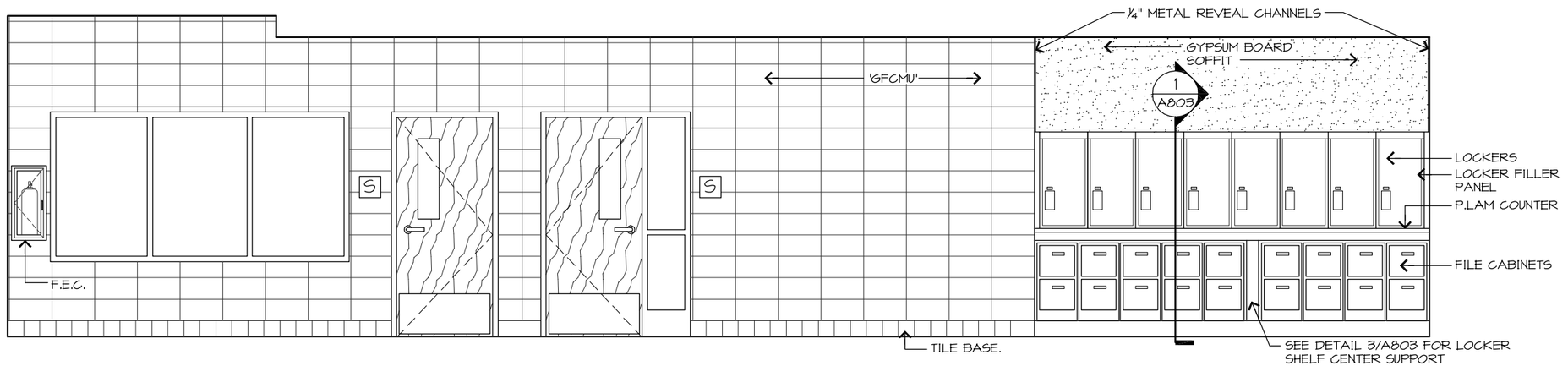
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			INTERIOR ELEVATIONS	DATE: 04/1/14	FINAL PS&E	
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A501	106



1 WEST ELEVATION @ 117 INSPECTION

1/8"=1'-0"

0 2 4 8 12

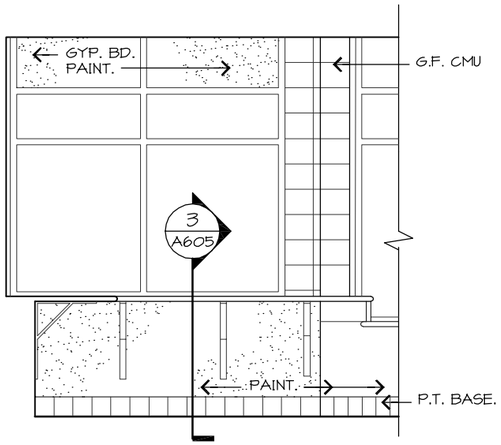


2 NORTH ELEVATION @ 112 CORRIDOR

1/4"=1'-0"

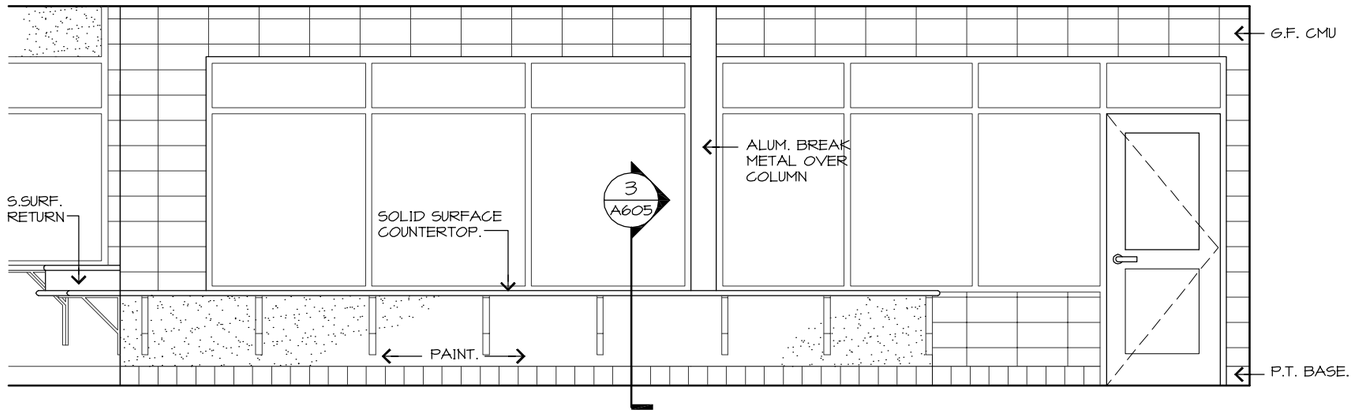
0 1 2 4 6

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			INTERIOR ELEVATIONS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 4 8 16 24	SHEET NO: A502	107



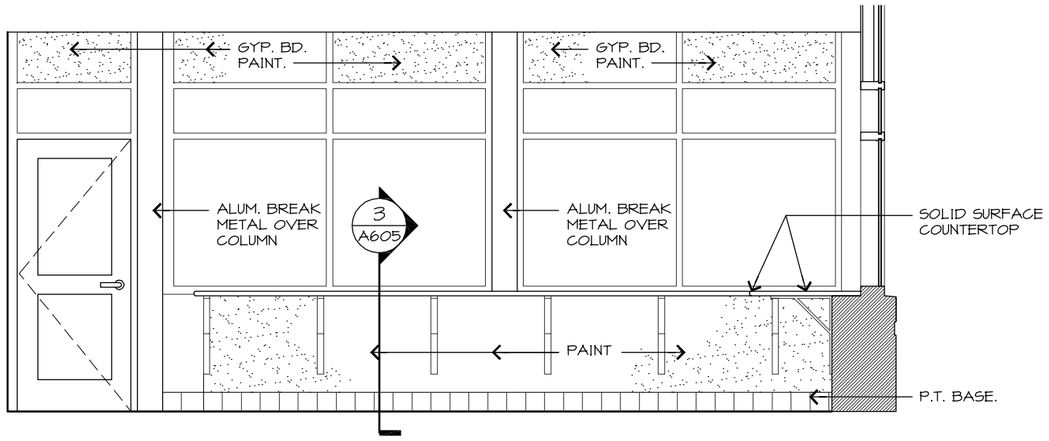
1 NORTH ELEVATION @ OPERATIONS 111

1/4"=1'-0"



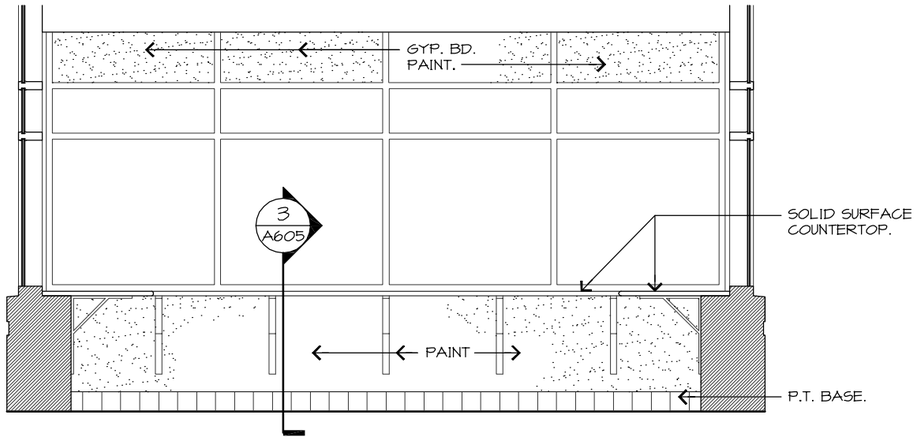
2 NORTHWEST ELEVATION @ OPERATIONS 111

1/4"=1'-0"



3 SOUTH ELEVATION @ OPERATIONS 111

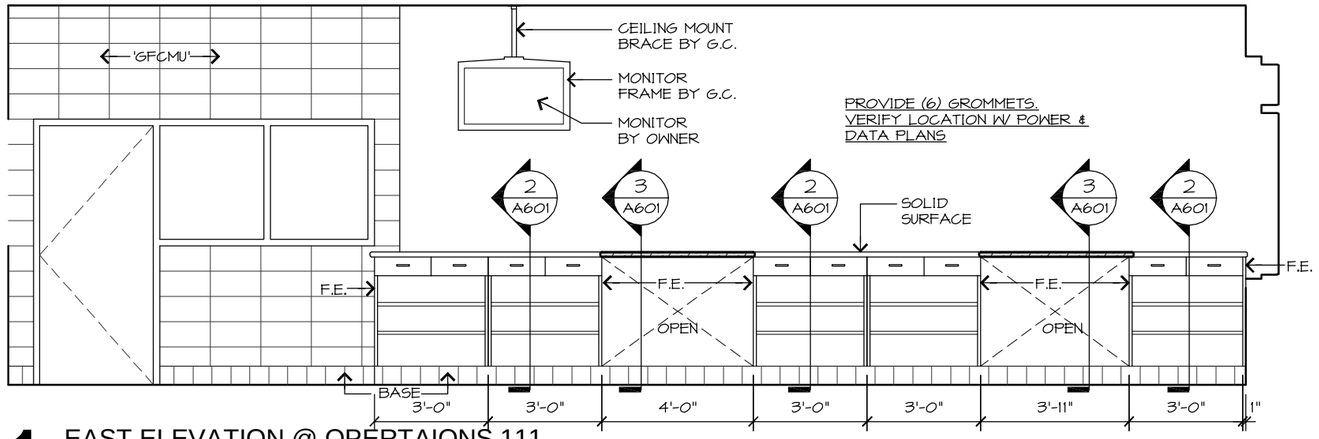
1/4"=1'-0"



4 WEST ELEVATION @ OPERATIONS 111

1/4"=1'-0"

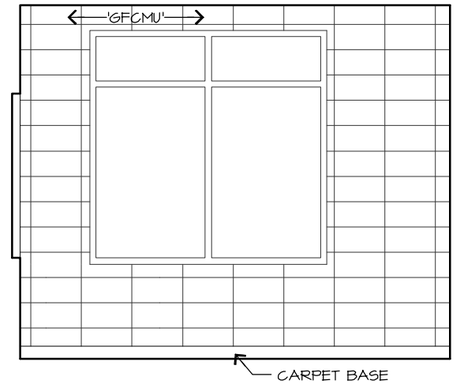
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			INTERIOR ELEVATIONS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A503	108



1 EAST ELEVATION @ OPERTAIONS 111

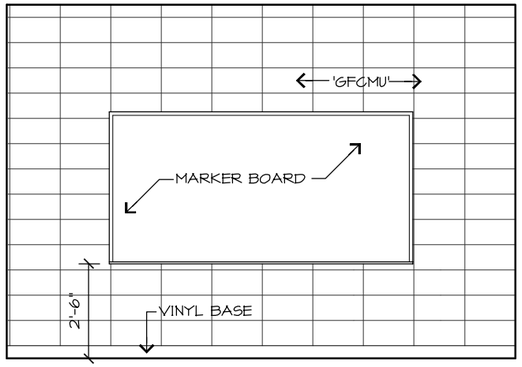
1/4"=1'-0"

NOTE: ELEVATION IS SHOWN AS BEING 'CUT' THROUGH PENINSULAS



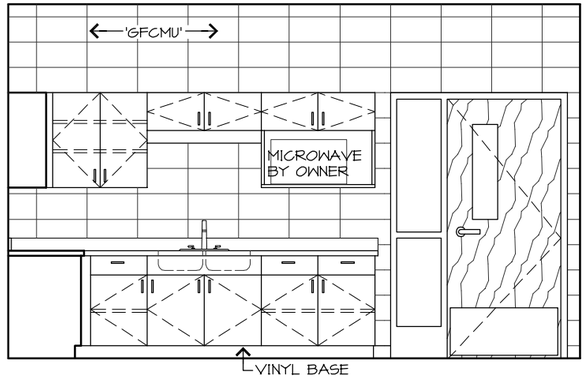
2 WEST ELEVATION @ OFFICE 113

1/4"=1'-0"



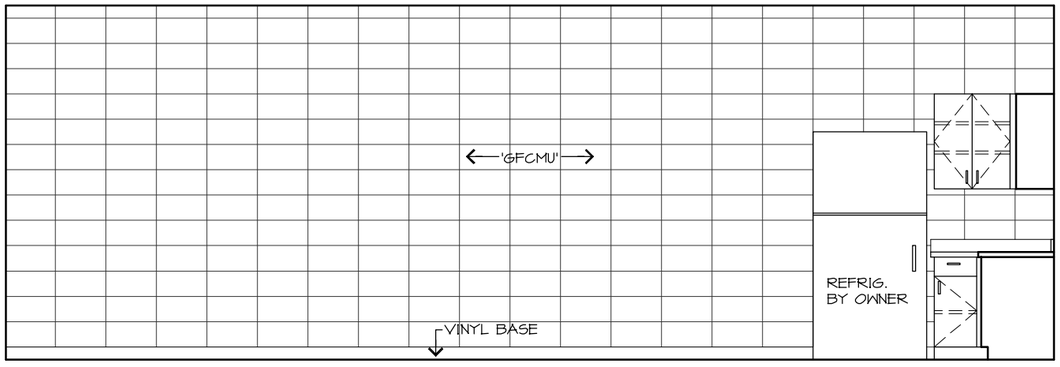
3 NORTH ELEVATION @ MULTI-PURPOSE 114

1/4"=1'-0"



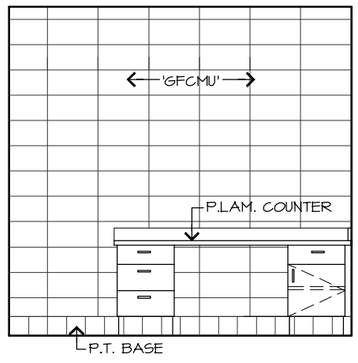
4 SOUTH ELEVATION @ MULTI-PURPOSE 114

1/4"=1'-0"



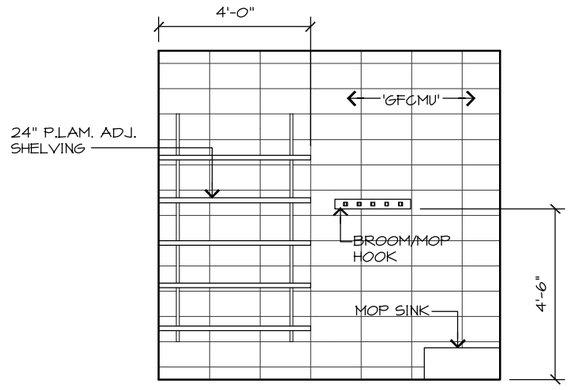
5 EAST ELEVATION @ MULTI PURPOSE 114

1/4"=1'-0"



6 EAST ELEV. @ INTOX 110

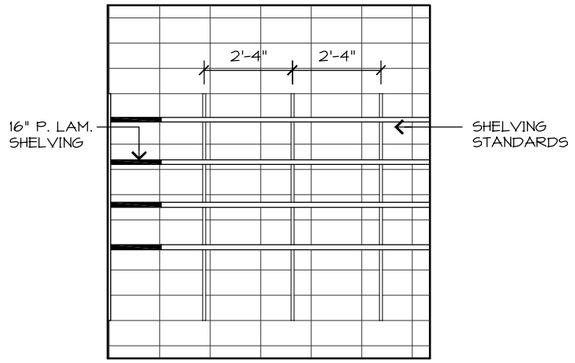
1/4"=1'-0"



7 EAST ELEVATION @ JANITOR 107

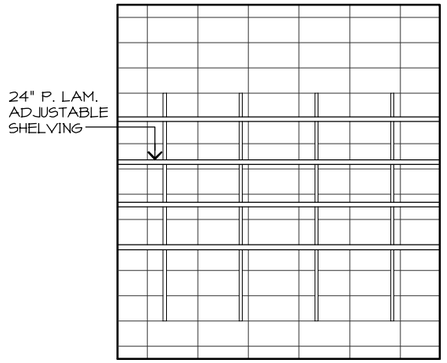
1/4"=1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			INTERIOR ELEVATIONS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A504	109



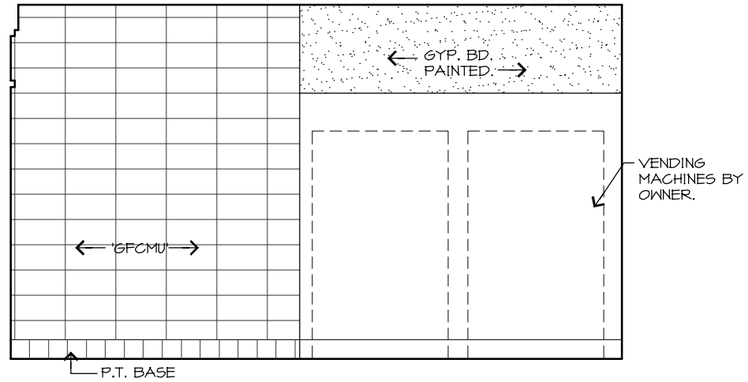
1 SOUTH ELEV. @ STORAGE RM. 103

1/4"=1'-0"



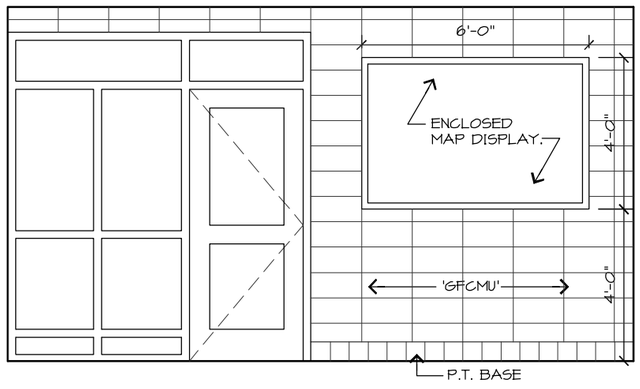
2 NORTH ELEV. @ STORAGE RM. 102

1/4"=1'-0"



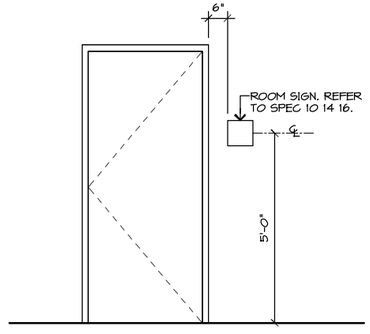
3 NORTH ELEVATION @ VESTIBULE 101

1/4"=1'-0"



4 SOUTH ELEVATION @ VESTIBULEC 101

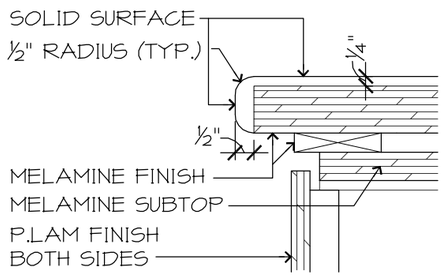
1/4"=1'-0"



5 TYPICAL SIGNAGE MOUNTING

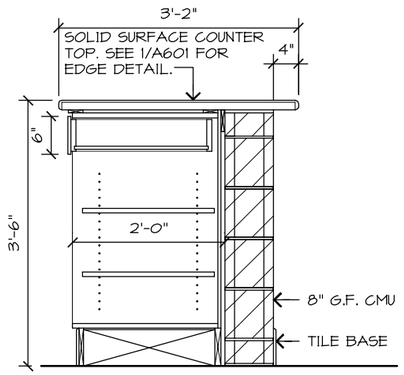
N.T.S.

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			INTERIOR ELEVATIONS		DATE: 04/1/14	FINAL PS&E	
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A505		110



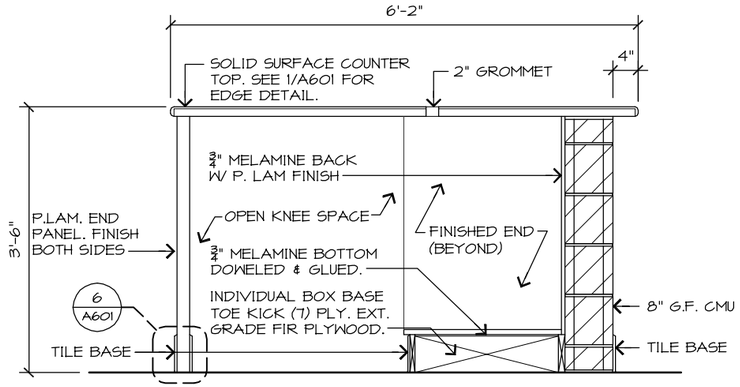
1 SOLID SURFACE EDGE DET.

3"=1'-0"



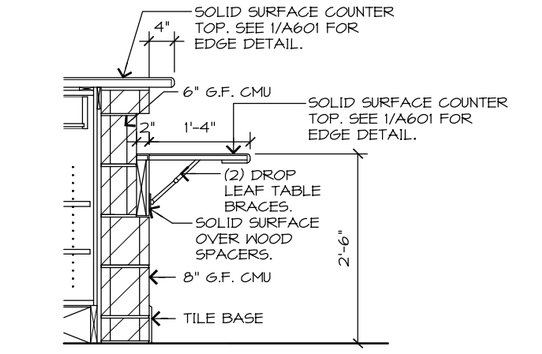
2 SECTION @ TYPICAL COUNTER

1/2"=1'-0"



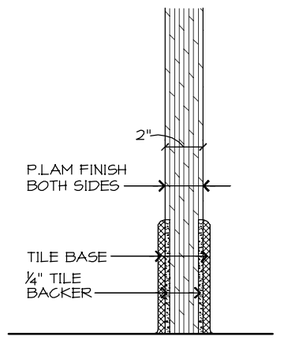
3 SECTION @ PENINSULA

1/2"=1'-0"



4 SECTION @ ACCESSIBLE COUNTER

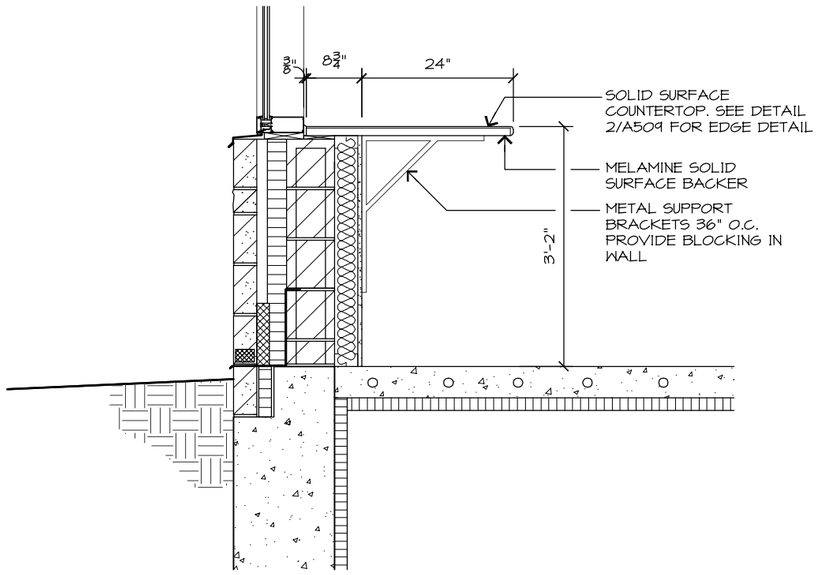
1/2"=1'-0"



5 BASE DETAIL

1/2"=1'-0"

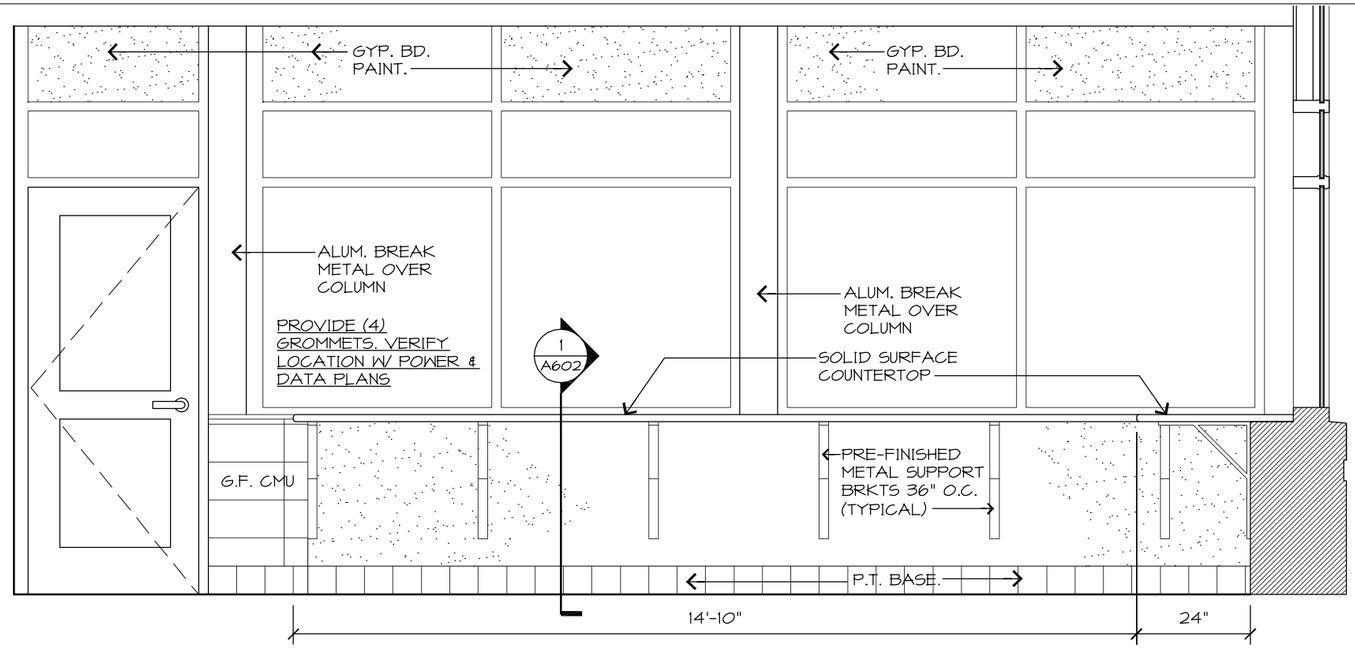
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ARCHITECTURAL MILLWORK		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A601	111



1 COUNTER SECTION @ 111 OPERATIONS

1/2"=1'-0"

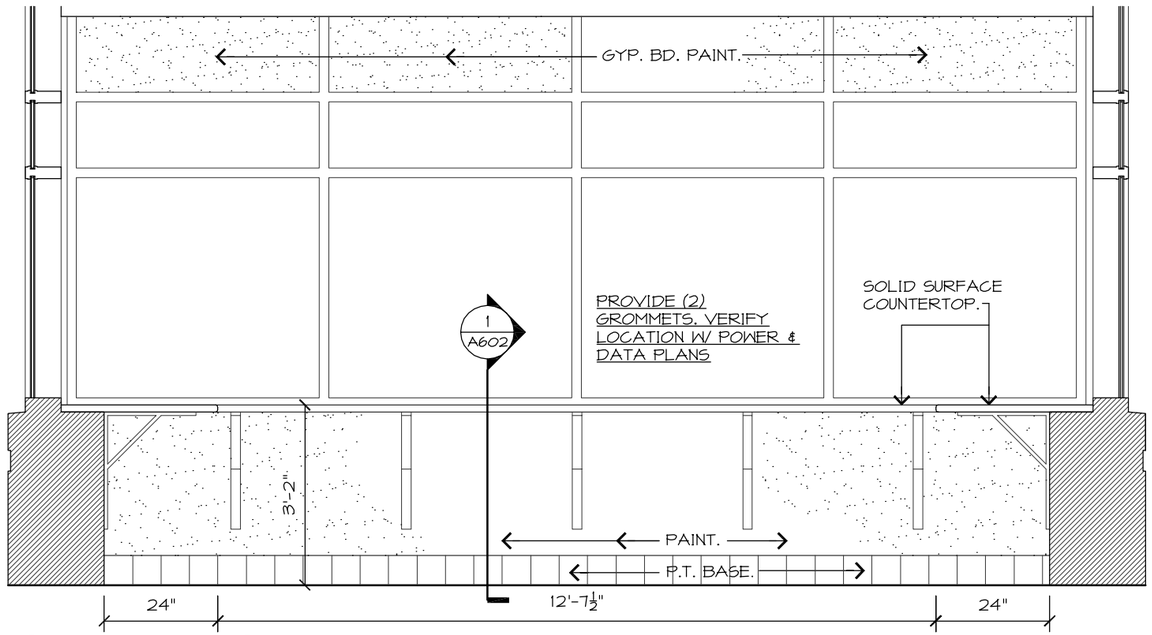
0 6" 1 2 3



2 SOUTH WALL @ 111 OPERATIONS

3/8"=1'-0"

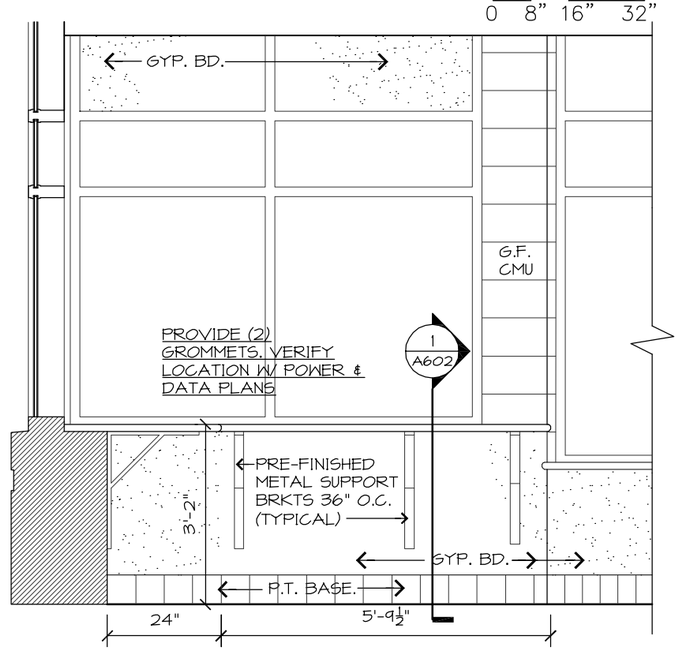
0 8" 16" 32" 48"



3 WEST WALL @ 111 OPERATIONS

3/8"=1'-0"

0 8" 16" 32" 48"

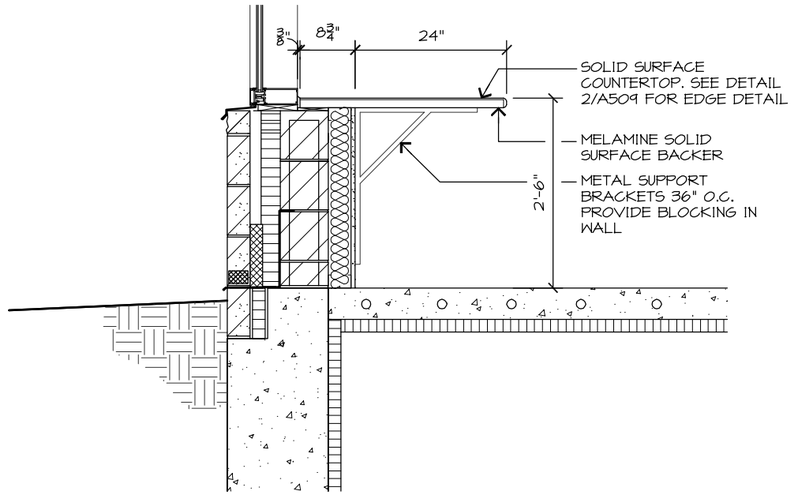


4 NORTH WALL @ 111 OPERATIONS

3/8"=1'-0"

0 8" 16" 32" 48"

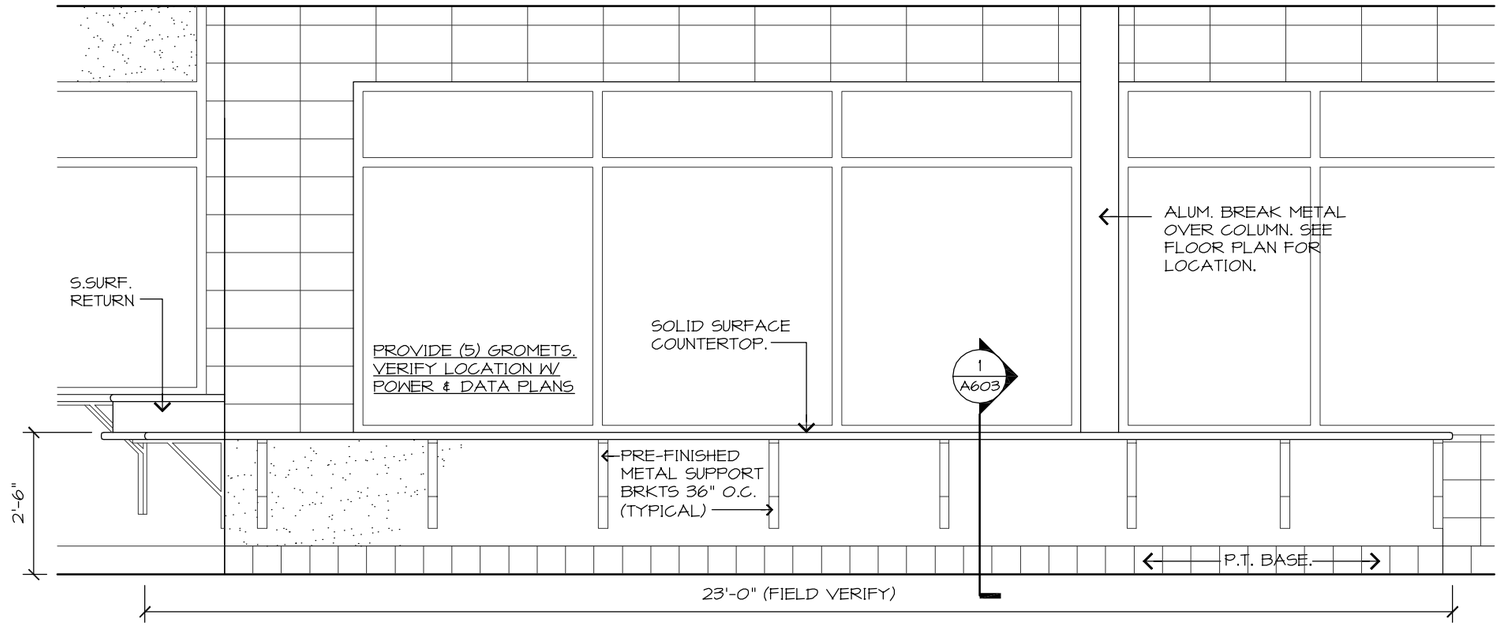
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ARCHITECTURAL MILLWORK	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A602



1 COUNTER SECTION @ 111 OPERATIONS

1/2"=1'-0"

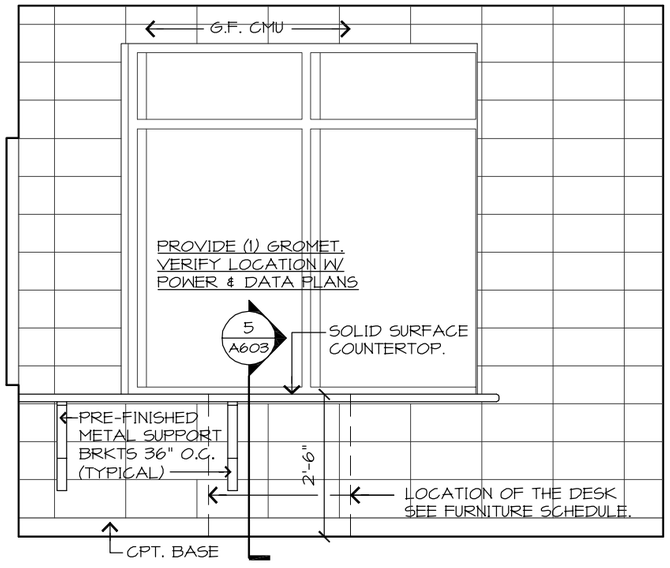
0 6" 1 2 3



2 WEST WALL @ 111 OPERATIONS

3/8"=1'-0"

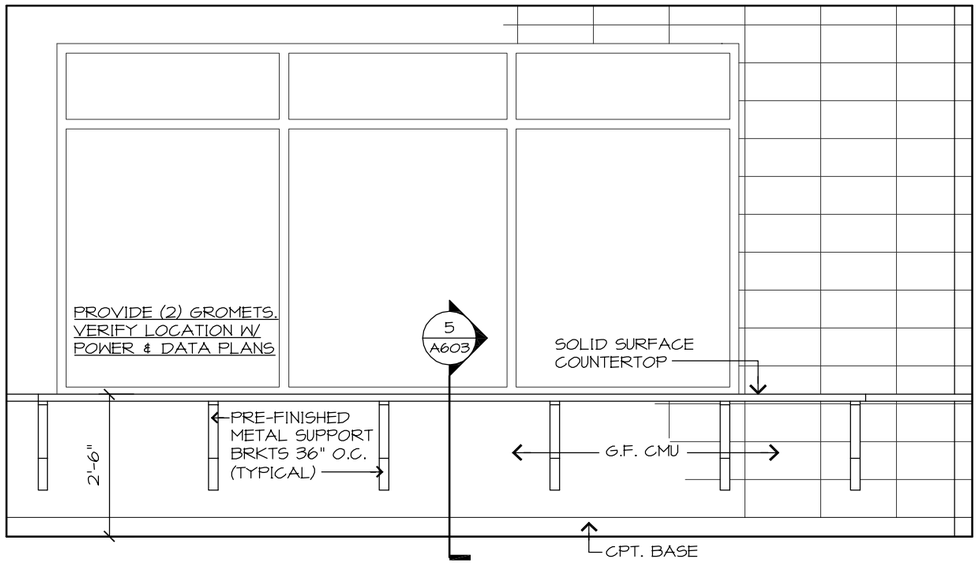
0 6" 1 2 3



3 WEST WALL @ 113 OFFICE

3/8"=1'-0"

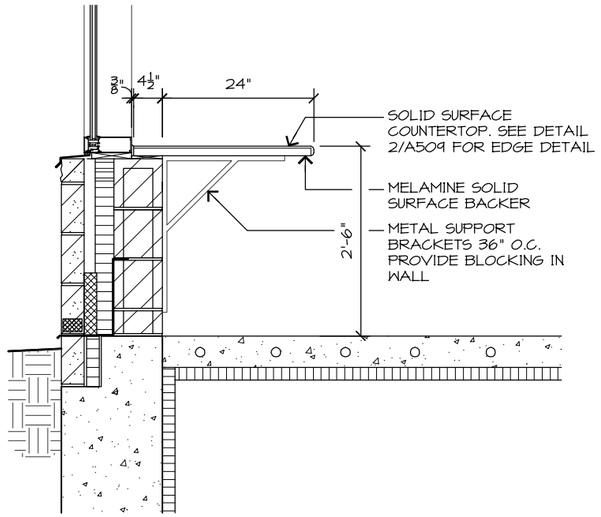
0 6" 1 2 3



4 WEST WALL @ 114 OFFICE

3/8"=1'-0"

0 6" 1 2 3

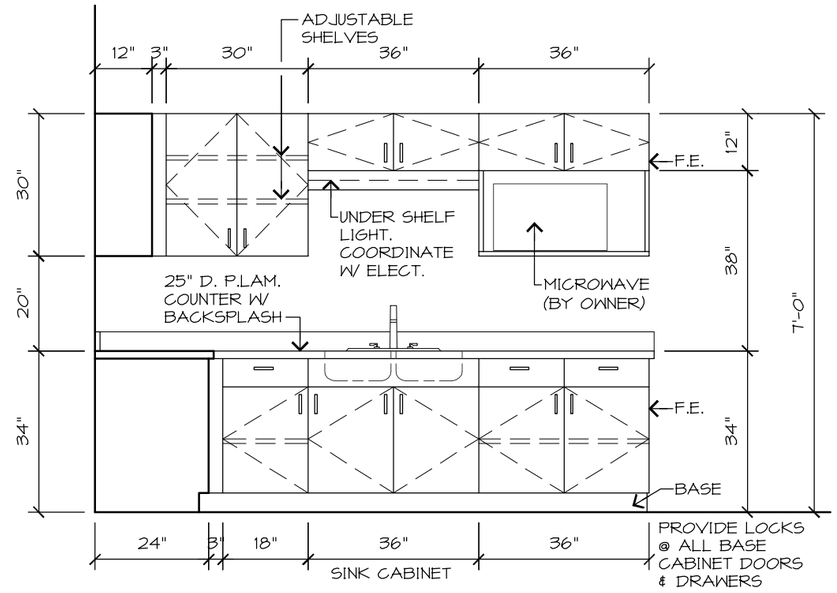


5 COUNTER SECTION @ 113 & 114

1/2"=1'-0"

0 6" 1 2 3

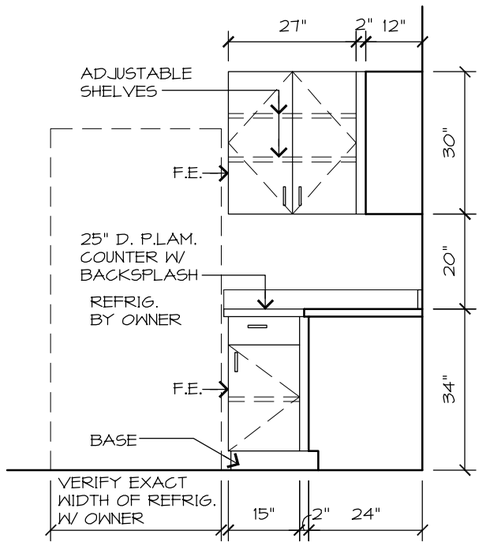
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ARCHITECTURAL MILLWORK		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A603	113



1 SOUTH ELEVATION @ 114 MULTI-PURPOSE

3/8"=1'-0"

0 8" 16" 32" 48"

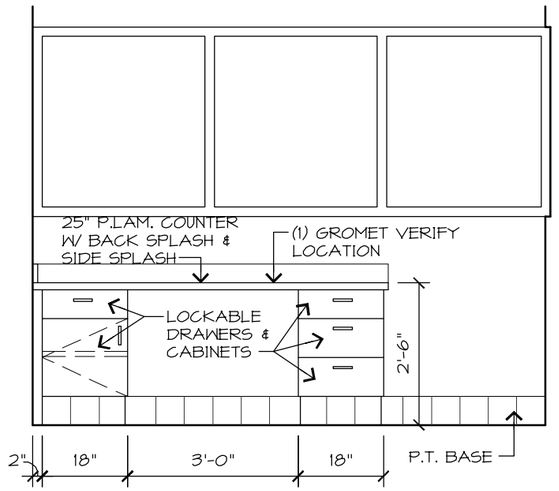


2 EAST ELEVATION

3/8"=1'-0"

114 MULTI-PURPOSE

0 8" 16" 32" 48"

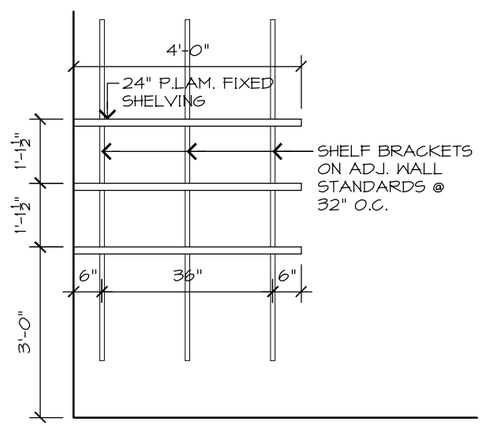


3 WEST ELEVATION @ 110 INTOX

3/8"=1'-0"

0 8" 16" 32" 48"

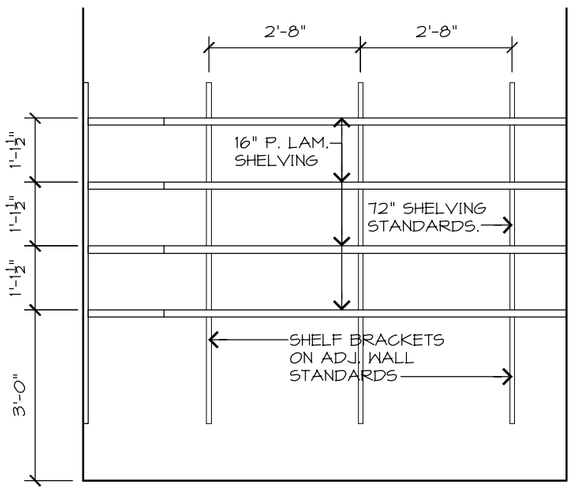
NOTE: SEE SHEET A605
FOR MILLWORK DETAILS



4 EAST ELEVATION @ 107 JANITOR

1/4"=1'-0"

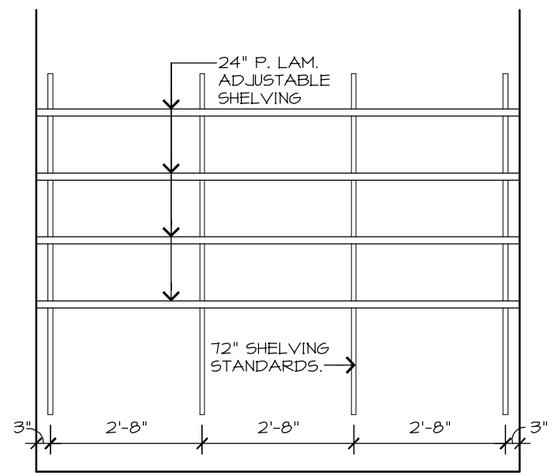
0 1 2 4 6



5 SOUTH ELEVATION @ 103 STORAGE RM.

1/4"=1'-0"

0 1 2 4 6



6 NORTH ELEVATION @ 102 STORAGE RM.

1/4"=1'-0"

0 1 2 4 6

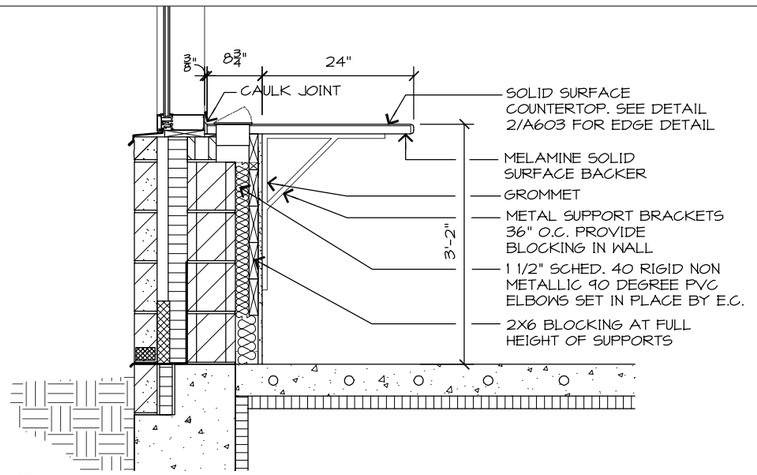
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ARCHITECTURAL MILLWORK		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A604	114

1 NOT USED

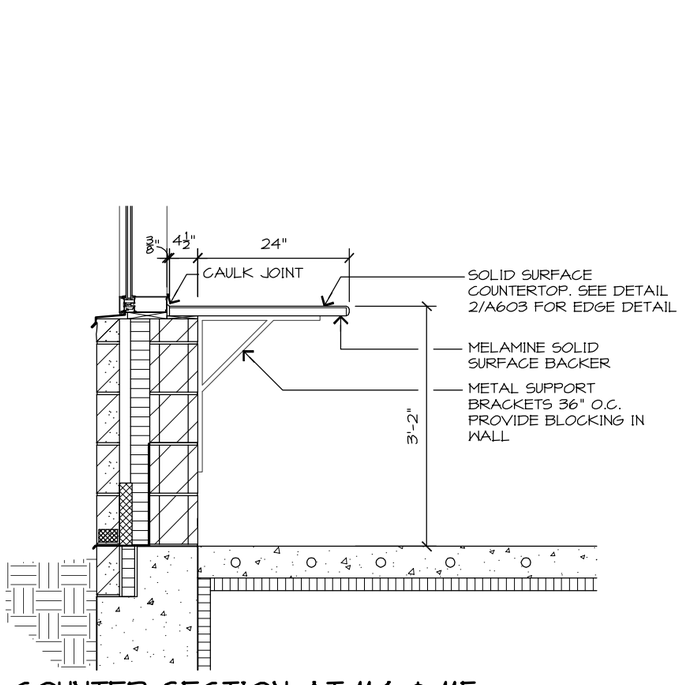
2 NOT USED

3 COUNTER SECTION @ 106 OPERATIONS

1/2" = 1'-0"



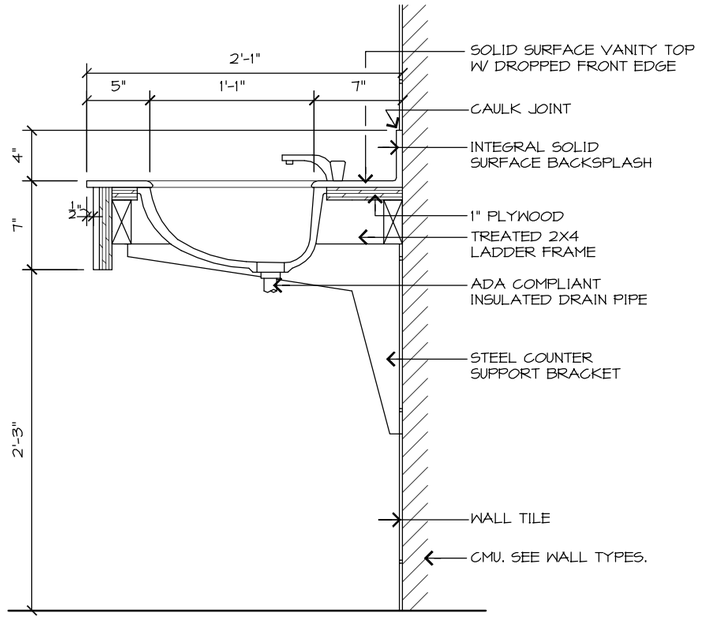
0 6" 1 2 3



4 COUNTER SECTION AT 114 & 115

1/2" = 1'-0"

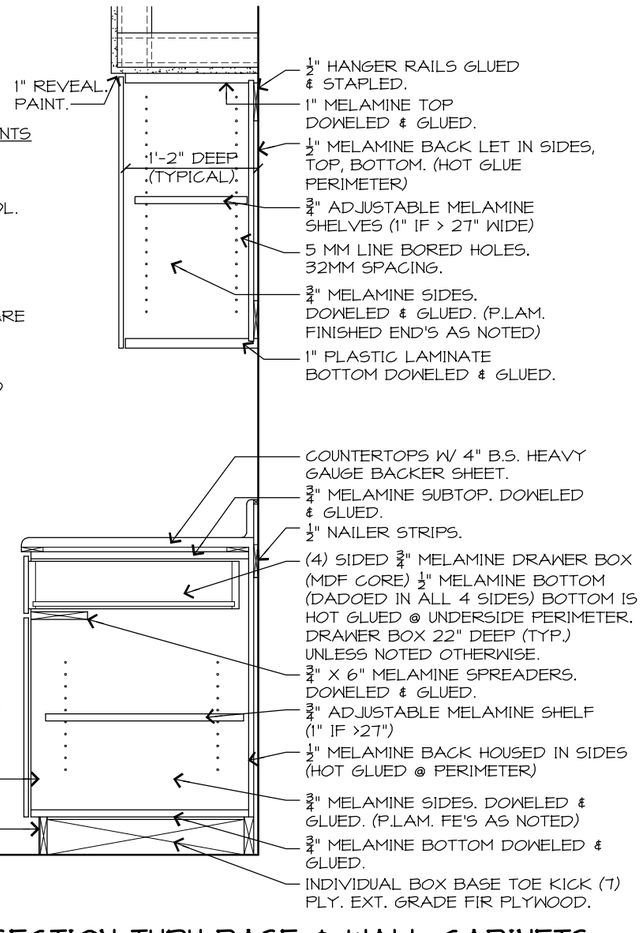
0 6" 1 2 3



5 VANTIY DETAIL

1" = 1'-0"

0 3" 6" 1 1.5



DOOR & DRAWER FRONTS (EXPOSED)
CORE: 3/4" (45#) IND. GRADE PART. BD.
FACE: V32 P.LAM. HPDL.
BACKS: V30 P.LAM. HPDL. (WHITE)
EDGES: 3MM PVC

-FINISHED ENDS AND EXPOSED INTERIORS ARE V32 HPDL.

-EXPOSED CABINET EDGES ARE COLOR TO MATCH PVC (.02")

CABINET INTERIORS (SEMI-EXPOSED)

-CABINET INTERIORS ARE WHITE MELAMINE.
- INTERIOR CABINET EDGES ARE COLOR MATCHING PVC (.02)

CABINET STYLE:
REVEAL OVERLAY
1/8" REVEALS.

CASE DEPTH IS DEPTH OF CABINET BOX. DOOR THICKNESS IS IN ADDITION TO THIS.

24" DEEP (TYPICAL)

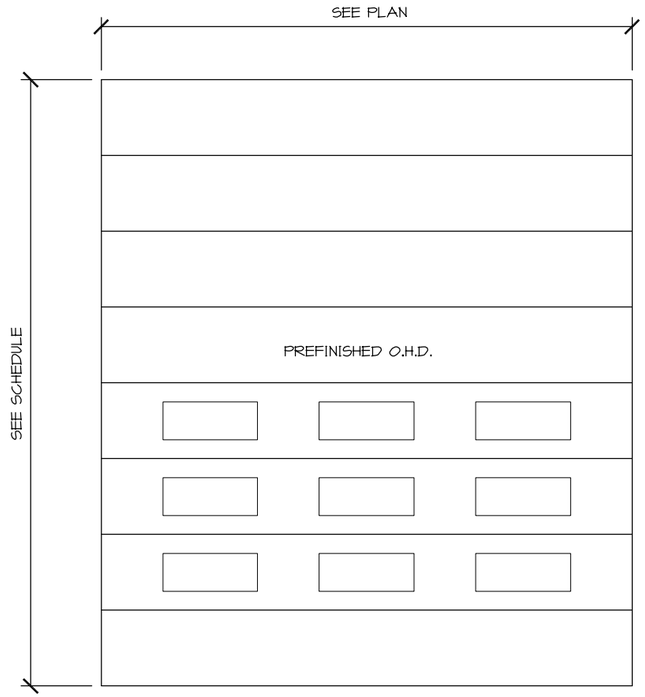
SEE FINISH SCHEDULE FOR BASE FINISH

6 TYPICAL SECTION THRU BASE & WALL CABINETS

3/4" = 1'-0"

0 4" 8" 16" 24"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ARCHITECTURAL MILLWORK DETAILS	DATE: 2/21/14	DRAFT P,S&E
STATE PROJECT NUMBER: 1070-00-72	HWY: IH 90	COUNTY: MONROE	SPARTA SWEF NO. 54	SCALE:	SHEET NO: A605



D-1

SECTIONAL O.H.D.

STOREFRONT SCHEDULE

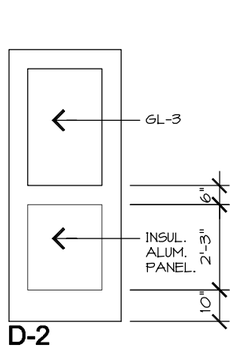
No.	Door Type	Head Detail	Jamb Detail	Sill Detail
SF-1	D3	1/A707 & 1/A705	4/A707 & 6/A705	11&12/A705
SF-2	-	1/A707	4&5/A707 & 8/A706	8/A707
SF-3	-	2/A707 SIM.	5&6A/707	8/A707
SF-4 &5	D3	2/A707	6&3/A707	8/A707 & 11/A705
SF-6	-	2/A707 SIM.	3/A707	8/A707
SF-7	-	2/A707 SIM.	3&4/A707	8/A707
SF-8	D2	1/A707 & 1/A705	4&9/A707	7/A707
SF-9	-	1/A707	4/A707	7/A707
SF-10	-	1/A707	4/A707	7/A707
SF-11	-	1/A707	4/A707	7/A707

BORROWED LITE SCHEDULE

No.	Type	Head Detail	Jamb Detail	Sill Detail
BL-1	BL-1	5/A705	1/A706	10/A705
BL-2	BL-2	5/A705	2/A706	10/A705

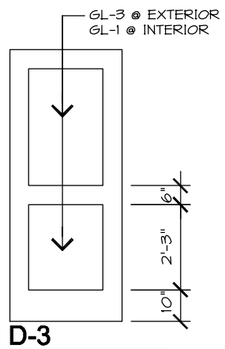
DOOR SCHEDULE

Door No.	Door Size	Door Type	Frame Type	Head Detail	Jamb Detail	Sill Detail	Label	Hardware	Remarks
001A	3'-0" X 7'-0"	D4	F3	5/A706	10/A706	13/A706		15	
001B	3'-0" X 7'-0"	D4	F3	5/A706	10/A706	13/A706		15	
101A	3'-0" X 7'-2"	D3	SF-1	1/A707 & 1/A705	4/A707 6/A705	11,12/A705		1	Door Operator
101B	3'-0" X 7'-2"	D3	F4	2/A705	7/A705	13/A705		1	Door Operator
101C	3'-0" X 6'-10"	D5	F1	3/A705	8/A705		2	2	
102A	3'-0" X 6'-10"	D4	F2	3/A705	8/A705		2	3	
102B	3'-0" X 6'-10"	D4	F2	3/A705	8/A705		2	3	
103	3'-0" X 6'-10"	D6	F1	4/A705	8/A705			4	
104	3'-0" X 6'-10"	D6	F1	4/A706	9/A706			5	Undercut 3/4"
105	3'-0" X 6'-10"	D6	F1	4/A706	9/A706			5	Undercut 3/4"
106	3'-0" X 6'-10"	D6	F1	4/A706	9/A706			5	Undercut 3/4"
107A	3'-0" X 6'-10"	D6	F1	4/A705	8,9/A705			4	
107B	3'-0" X 6'-10"	D6	F1	4/A705	8,9/A705			4	Undercut 3/4"
109A	3'-0" X 7'-2"	D8	F5	3/A706	7,8/A706	11/A706		10	
109B	3'-0" X 2'-10"	D9	F8	-	6,7/A706			11	
110A	3'-0" X 6'-10"	D8	F1	3/A705	8/A705			6	Undercut 3/4"
110B	3'-0" X 6'-10"	D8	F6	3,5/A705	8/A705	10/A705		6	
111A	3'-0" X 7'-2"	D3	SF-4	2/A707	6/A707	11/A705		12	
111B	3'-0" X 7'-2"	D2	SF-8	1/A705	4/A707	11/A705		12	
112	3'-0" X 6'-10"	D5	F1	3/A705	8/A705		2	13	
113	3'-0" X 6'-10"	D7	F1	3/A705	8/A705			7	
114	3'-0" X 6'-10"	D7	F7	3/A705	8/A705	14/A705		6	
115	3'-0" X 6'-10"	D4	F1	4/A705	8/A705			4	
116A	3'-0" X 6'-10"	D4	F1	3/A705	8/A705		2	14	
116B	3'-0" X 6'-10"	D4	F2	3/A705	8/A705		2	3	
116C	3'-0" X 6'-10"	D4	F2	3/A705	8/A705		2	3	
117A	3'-0" X 6'-10"	D5	F1	14/A706	15/A706	16/A706		8	
117B	3'-0" X 6'-10"	D5	F1	14/A706	15/A706	16/A706		9	
117C	3'-0" X 6'-10"	D5	F1	14/A706	15/A706	16/A706		8	
117D	3'-0" X 6'-10"	D5	F1	14/A706	15/A706	16/A706		9	
117E	14'-0" X 16'-0"	D1	-	3/A708	4/A708	5/A708			
117F	14'-0" X 16'-0"	D1	-	3/A708	4/A708	5/A708			
117G	14'-0" X 16'-0"	D1	-	3/A708	4/A708	5/A708			
117H	14'-0" X 16'-0"	D1	-	3/A708	4/A708	5/A708			



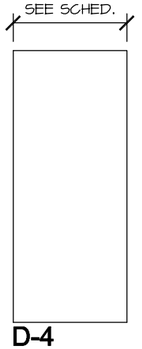
D-2

ALUMINUM



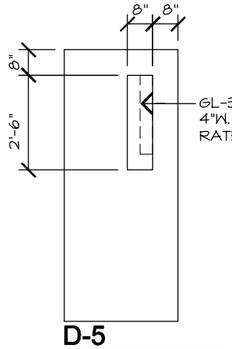
D-3

ALUMINUM



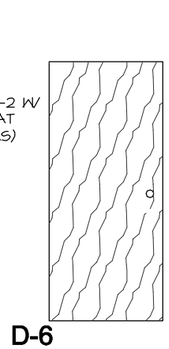
D-4

HOLLOW METAL



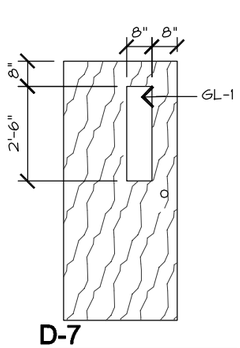
D-5

HOLLOW METAL



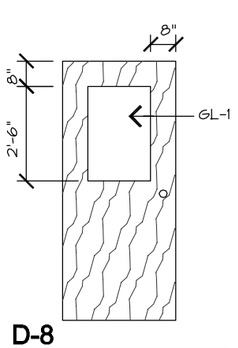
D-6

WOOD (SOLID CORE)



D-7

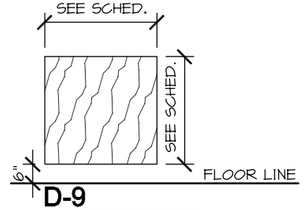
WOOD (SOLID CORE)



D-8

WOOD (SOLID CORE)

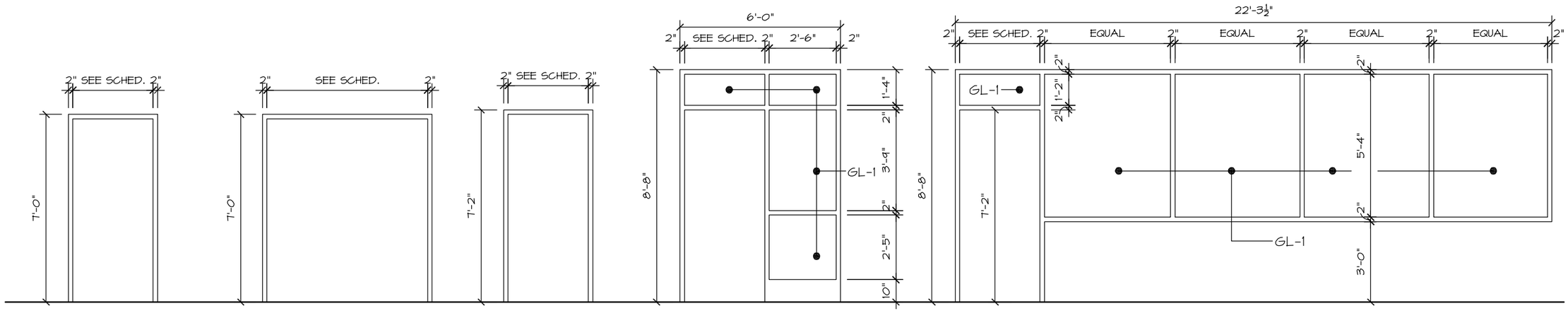
SEE SPECIFICATIONS FOR HARDWARE GROUP



D-9

WOOD (SOLID CORE)

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SCHEDULES	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A701



F-1
HOLLOW METAL

F-2
HOLLOW METAL

F-3
HOLLOW METAL

F-4
ALUMINUM

F-5
HOLLOW METAL

GLAZING SCHEDULE: Refer to specifications

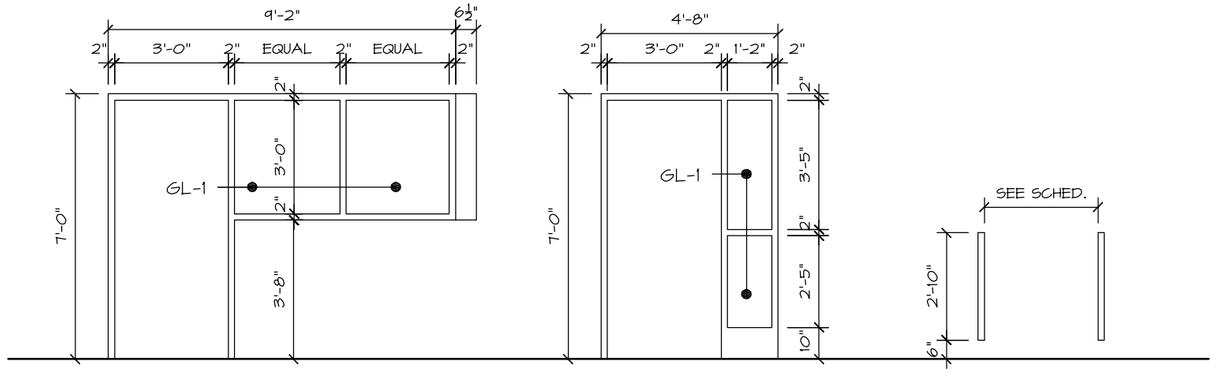
GL-1 : Tempered Glass
-Interior glazing at non-rated doors, sidelights, and borrowed lights
-¼" thick, tempered, clear, unless otherwise indicated

GL-2 : Fire-Rated Glass
-Glazing located in doors and sidelites
-See spec for glass type

GL-3 : Insulated glass units
-Glazing located in exterior doors and sidelites
-Sealed Insulating Glass Units consisting of:
¼" tinted tempered glass, exterior pane
½" air space
¼" thick clear tempered glass, interior pane, with low-E coating

GL-4 : Insulated glass units
-Glazing located in exterior storefront aluminum.
-Sealed Insulating Glass Units consisting of:
¼" tinted tempered float glass, exterior pane
½" air space
¼" thick clear tempered glass, interior pane, with low-E coating

GL-5 : Insulated spandrel glass units
-Glazing located in exterior storefront aluminum, upper units
-Sealed Insulating Glass Units consisting of:
¼" tinted tempered glass, exterior pane
½" air space
¼" colored tempered spandrel glass, interior pane

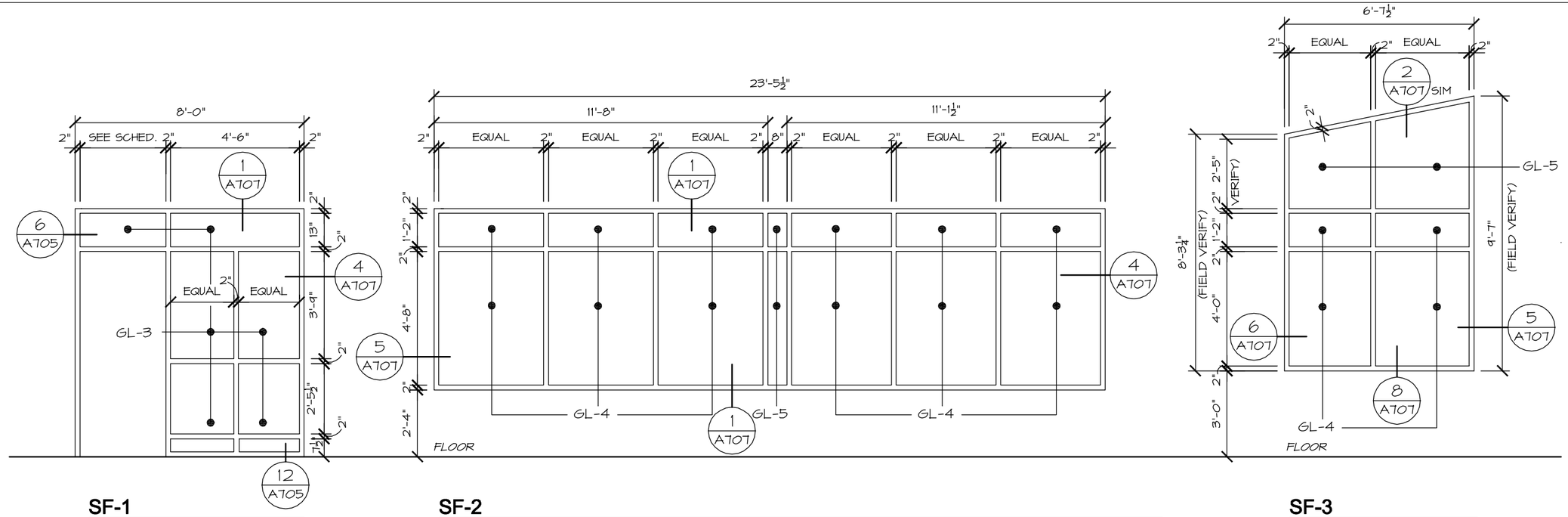


F-6
HOLLOW METAL

F-7
HOLLOW METAL

F-8
HOLLOW METAL

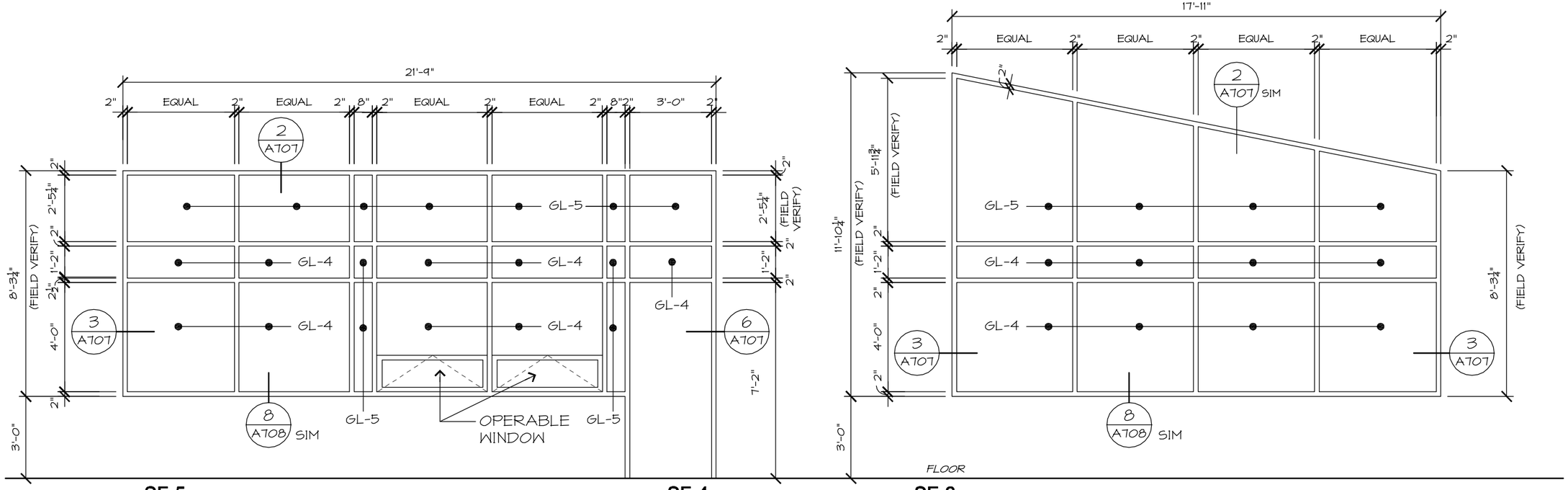
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FRAME ELEVATIONS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 1 2 4 6	SHEET NO: A702	117



SF-1
ALUMINUM STOREFRONT

SF-2
ALUMINUM STOREFRONT

SF-3
ALUMINUM STOREFRONT



SF-5
ALUMINUM STOREFRONT

SF-4
ALUMINUM STOREFRONT

SF-6
ALUMINUM STOREFRONT

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI

STATE PROJECT NUMBER: 1190–43–71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS

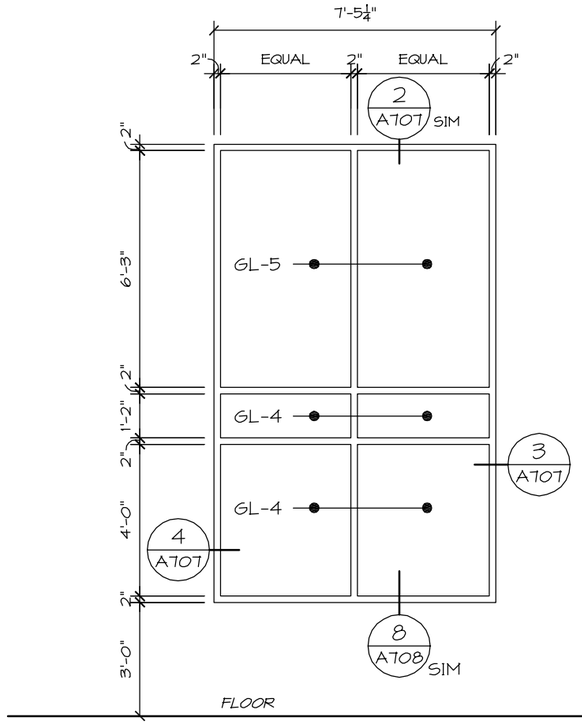
STOREFRONT ALUMINUM ELEVATIONS

SUPERIOR SAFETY & WEIGHT FACILITY NO. 72

SCALE: 0 1 2 4 6

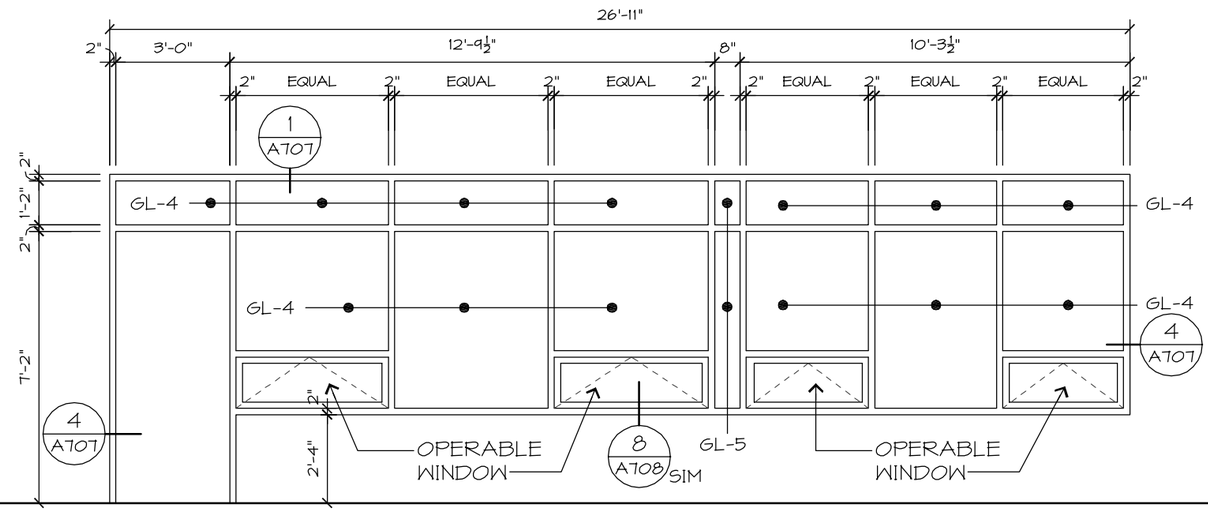
DATE: 04/1/14 | FINAL PS&E

SHEET NO: A703



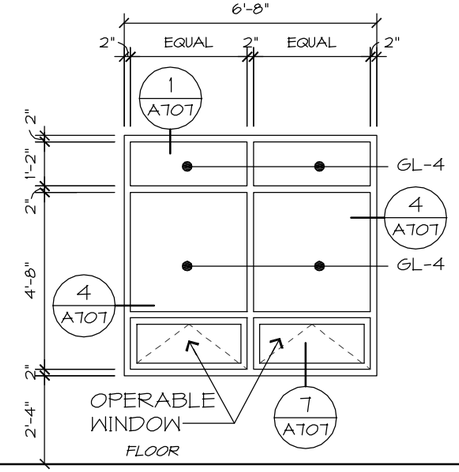
SF-7

ALUMINUM STOREFRONT



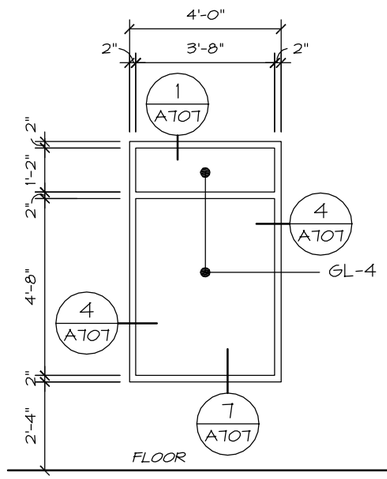
SF-8

ALUMINUM STOREFRONT



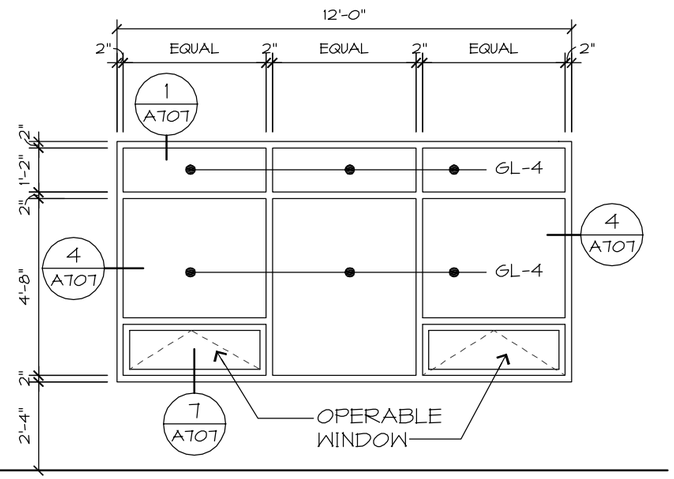
SF-9

ALUMINUM STOREFRONT



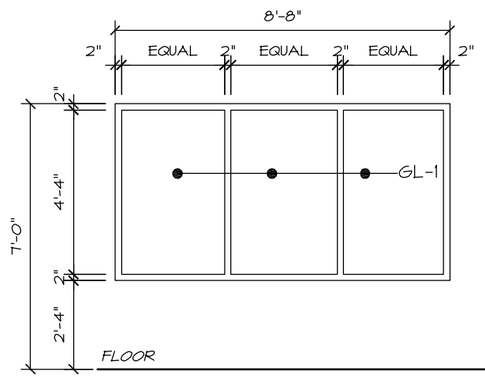
SF-10

ALUMINUM STOREFRONT



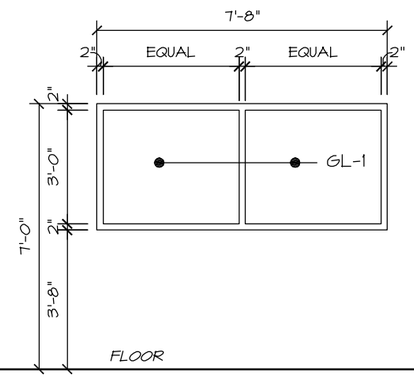
SF-11

ALUMINUM STOREFRONT



BL-1

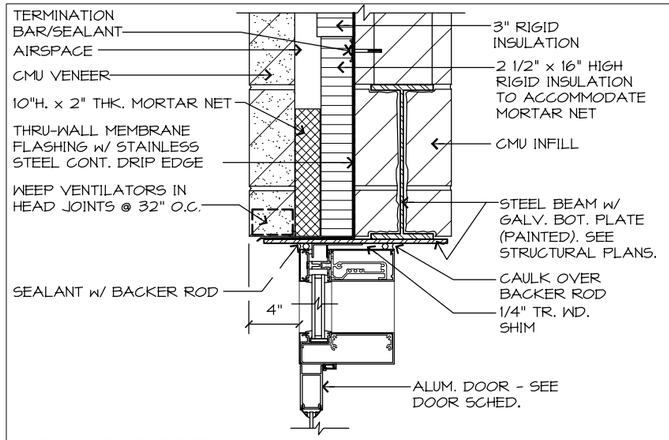
HOLLOW METAL



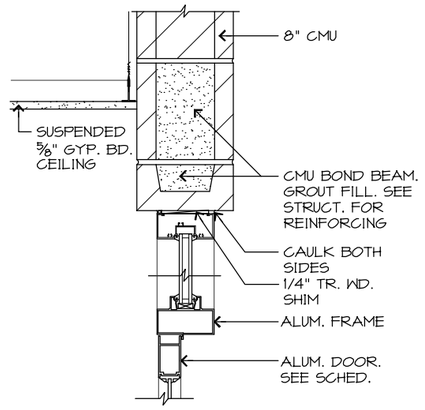
BL-2

HOLLOW METAL

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FRAME & BORROWED LITE ELEVATIONS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A704



1 HEAD DETAIL
1"=1'-0"



2 HEAD DETAIL
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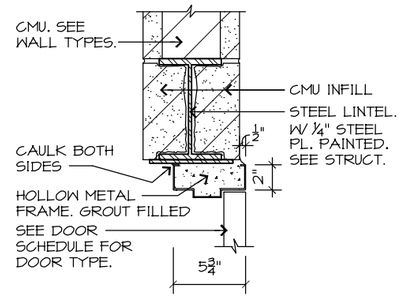

3 HEAD DETAIL
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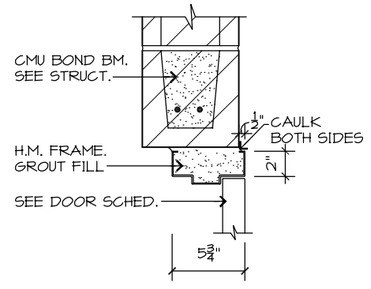

4 HEAD DETAIL
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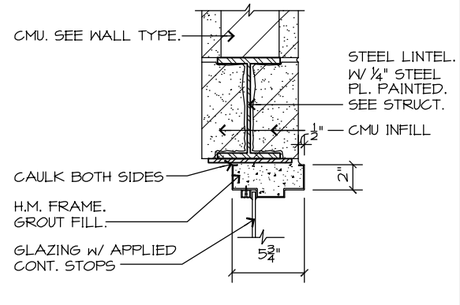

5 SIDELITE HEAD DETAIL
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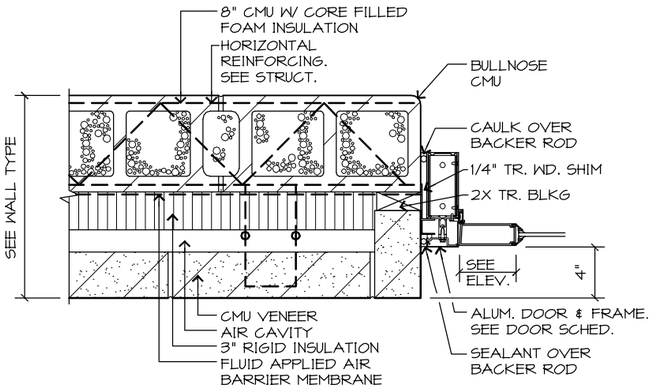
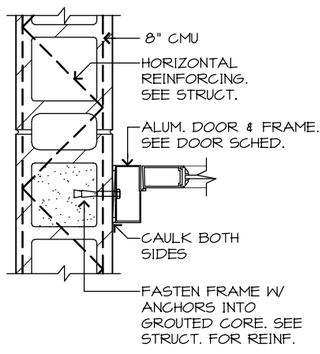


6 JAMB DETAIL
1"=1'-0"



7 JAMB DETAIL
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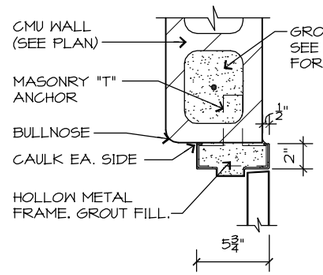

8 JAMB DETAIL
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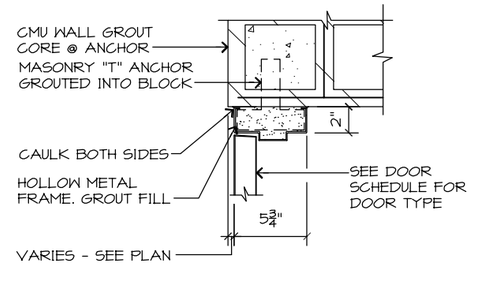

9 JAMB DETAIL
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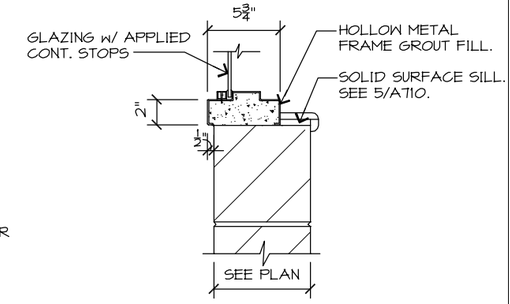

10 SIDELITE SILL DETAIL
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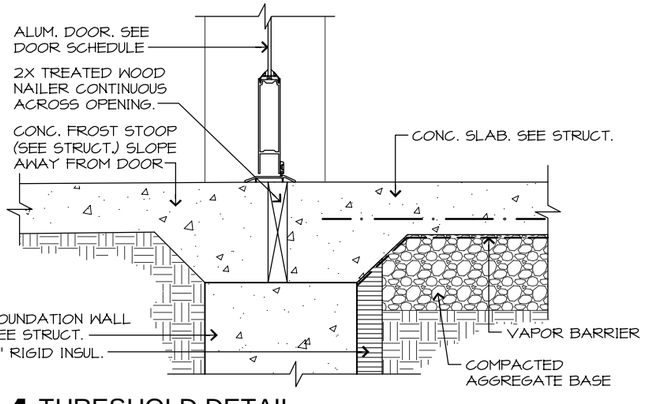

11 THRESHOLD DETAIL
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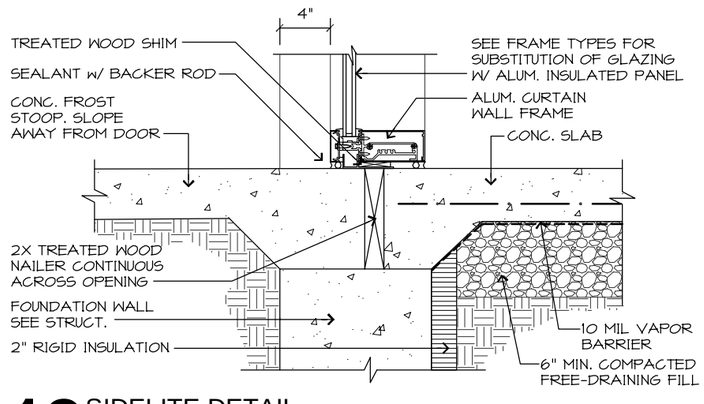

12 SIDELITE DETAIL
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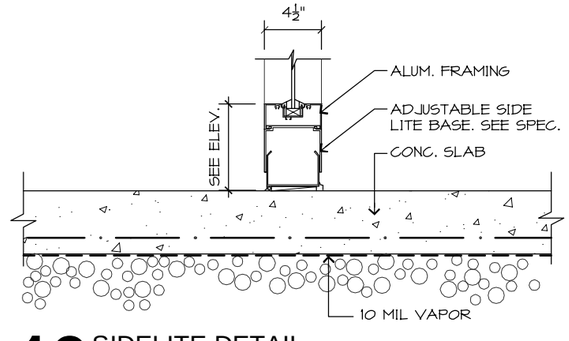

13 SIDELITE DETAIL
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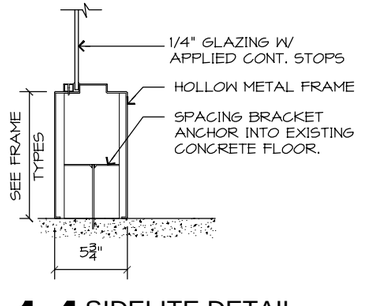
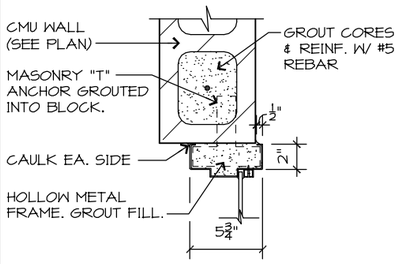


14 SIDELITE DETAIL
1"=1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DOOR DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 3" 6" 1 1.5	SHEET NO: A705	120



1 B.L. JAMB DETAIL
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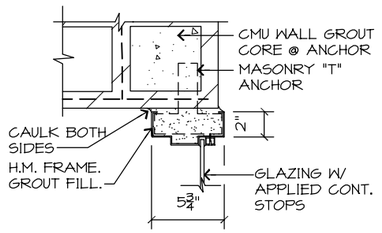

2 B.L. JAMB DETAIL
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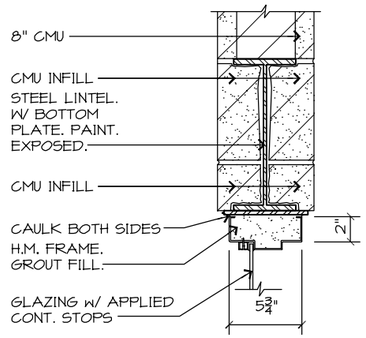

3 HEAD DETAIL
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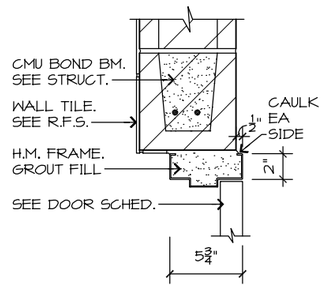
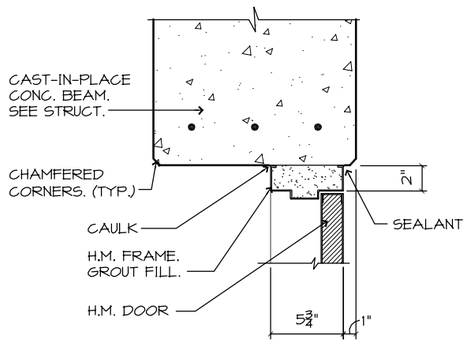


4 HEAD DETAIL
1"=1'-0"



5 HEAD DETAIL
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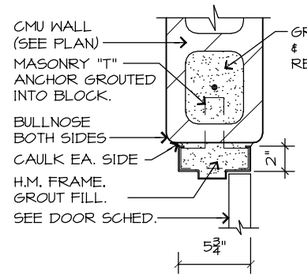
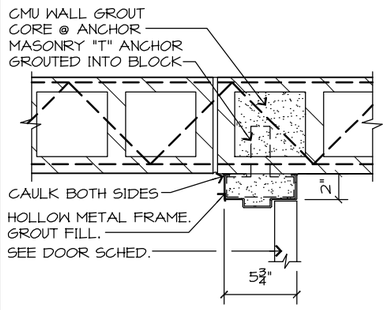


6 JAMB DETAIL
1"=1'-0"



7 JAMB DETAIL
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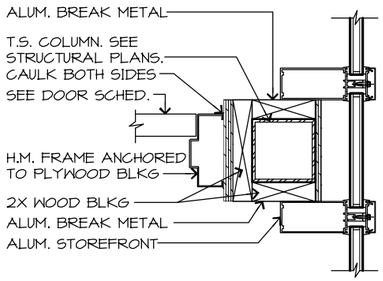

8 JAMB DETAIL
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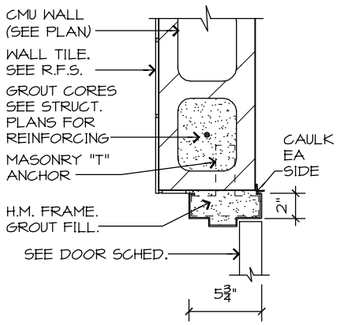

9 JAMB DETAIL
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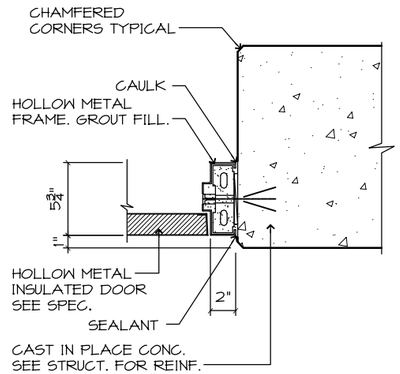
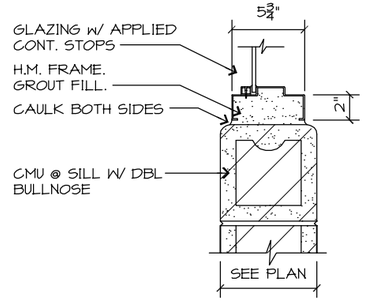
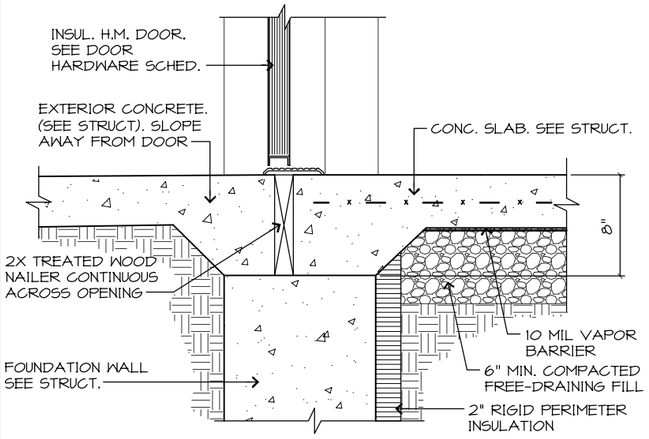


10 JAMB DETAIL
1"=1'-0"

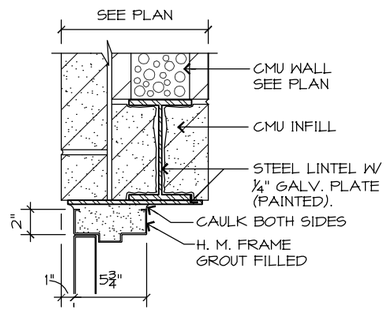


11 SIDELITE SILL DETAIL
1"=1'-0"

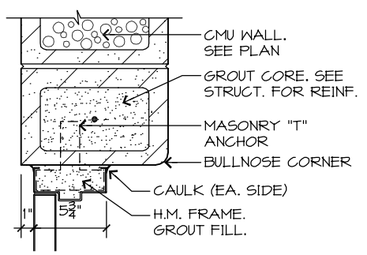
12 NOT USED



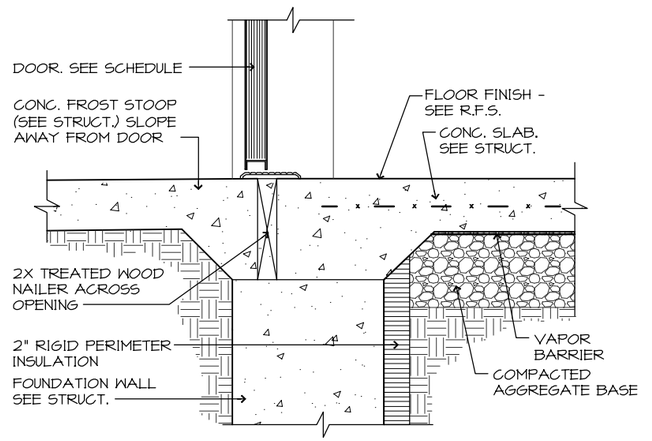
13 THRESHOLD DETAIL
1"=1'-0"



14 HEAD DETAIL
1"=1'-0"

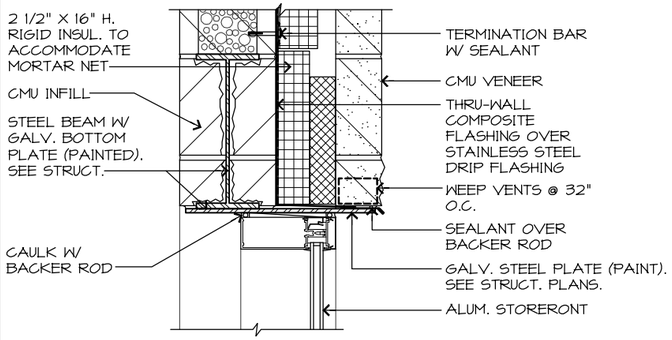


15 JAMB DETAIL
1"=1'-0"



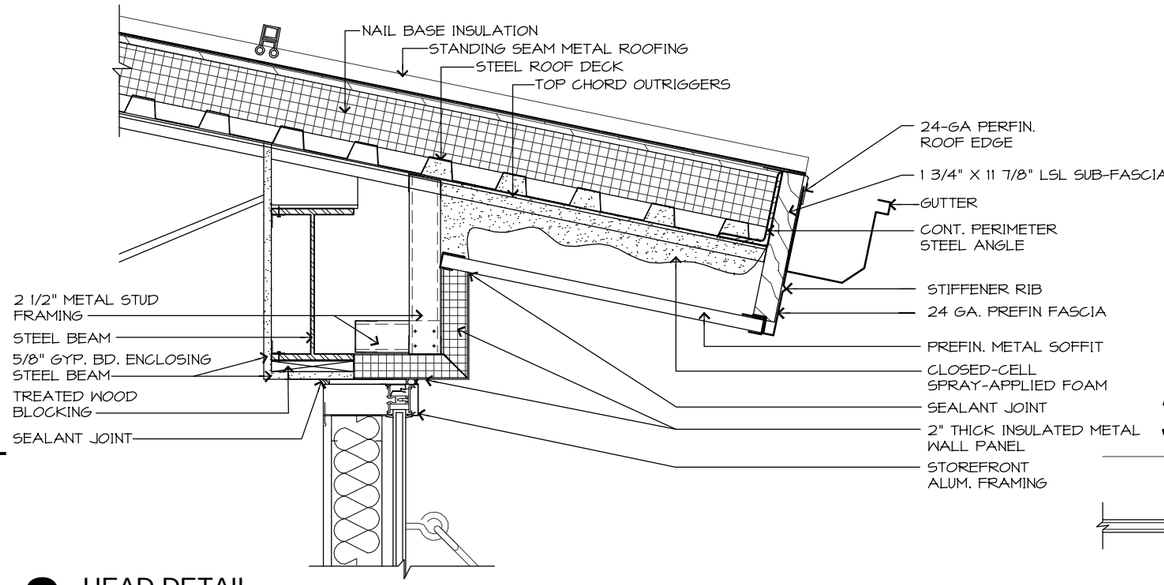
16 THRESHOLD DETAIL
1"=1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DOOR DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 2 4 8 12	SHEET NO: A706	121



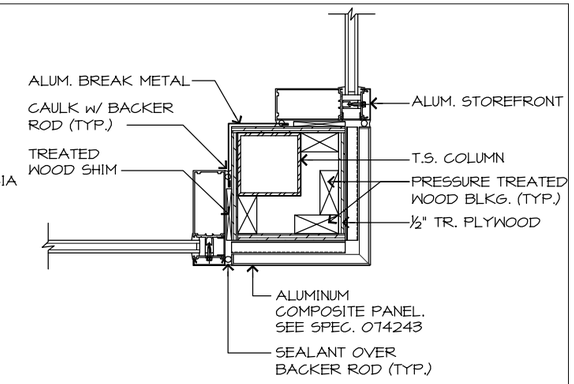
1 HEAD DETAIL

1"=1'-0"



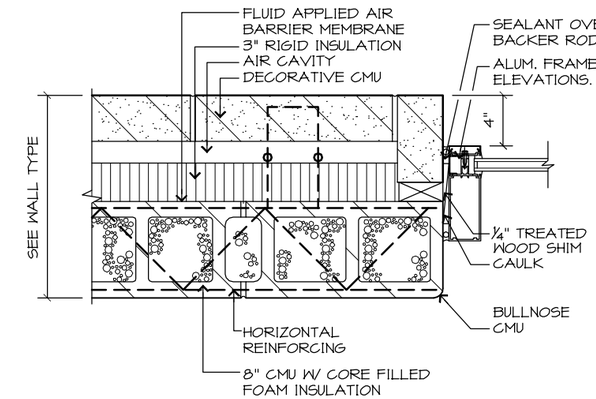
2 HEAD DETAIL

1"=1'-0"



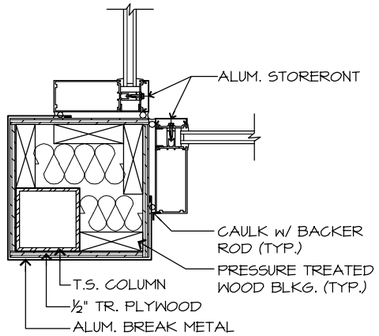
3 JAMB DETAIL

1"=1'-0"



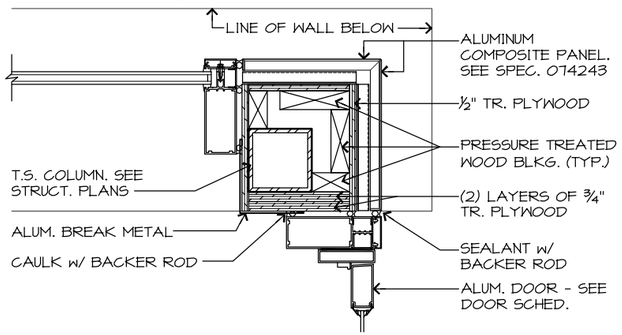
4 JAMB DETAIL

1"=1'-0"



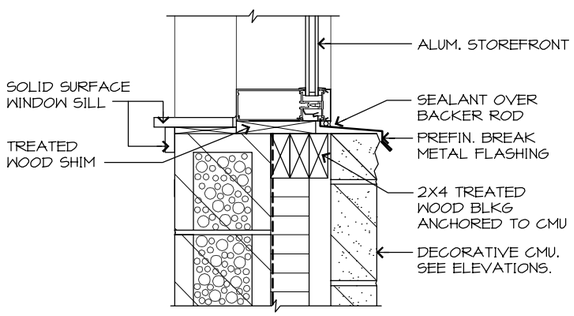
5 JAMB DETAIL

1"=1'-0"



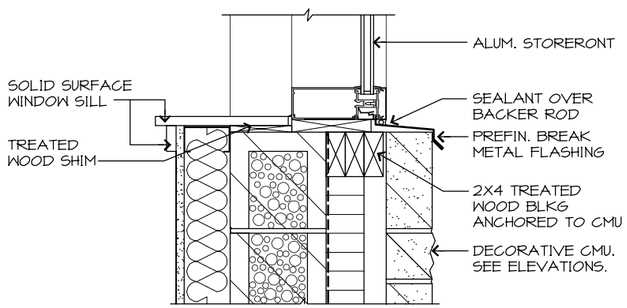
6 JAMB DETAIL

1"=1'-0"



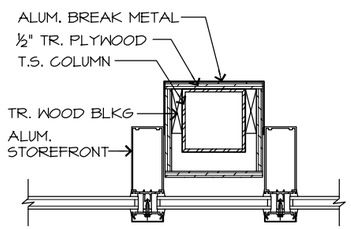
7 SILL DETAIL

1"=1'-0"



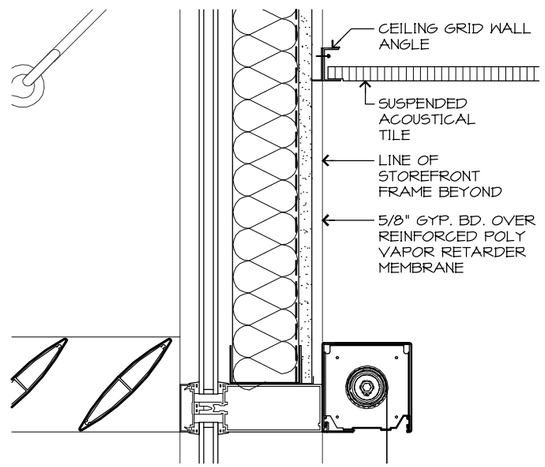
8 SILL DETAIL

1"=1'-0"



9 JAMB DETAIL

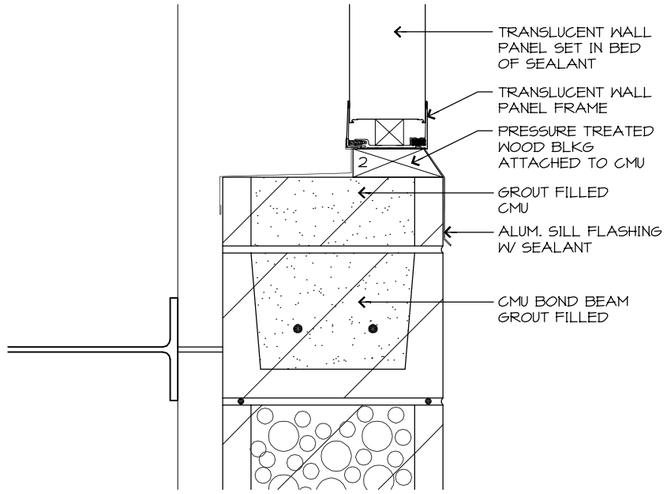
1"=1'-0"



10 CEILING DETAIL

1"=1'-0"

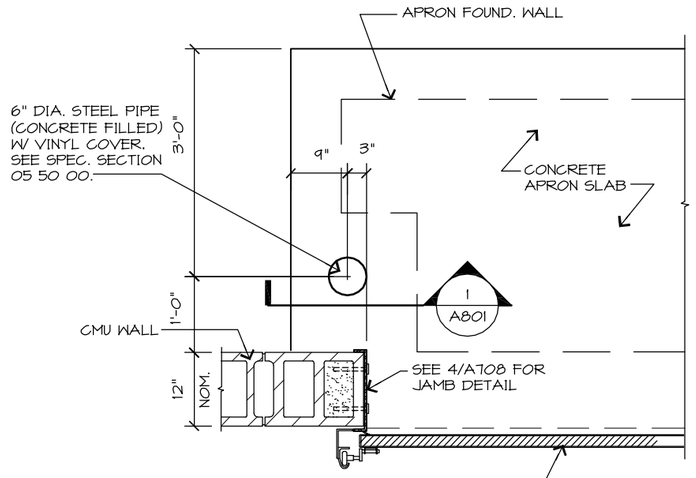
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			OPENING DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 3" 6" 1 1.5	SHEET NO: A707	122



1 TRANSULUCENT PANEL SILL

1 1/2"=1'-0"

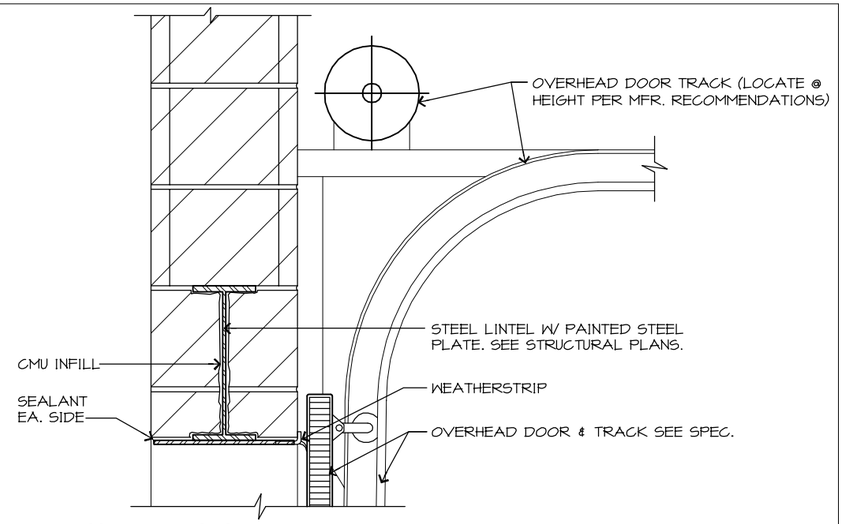
0 2" 4" 8" 12"



2 GUARD POST DETAIL

1/2"=1'-0"

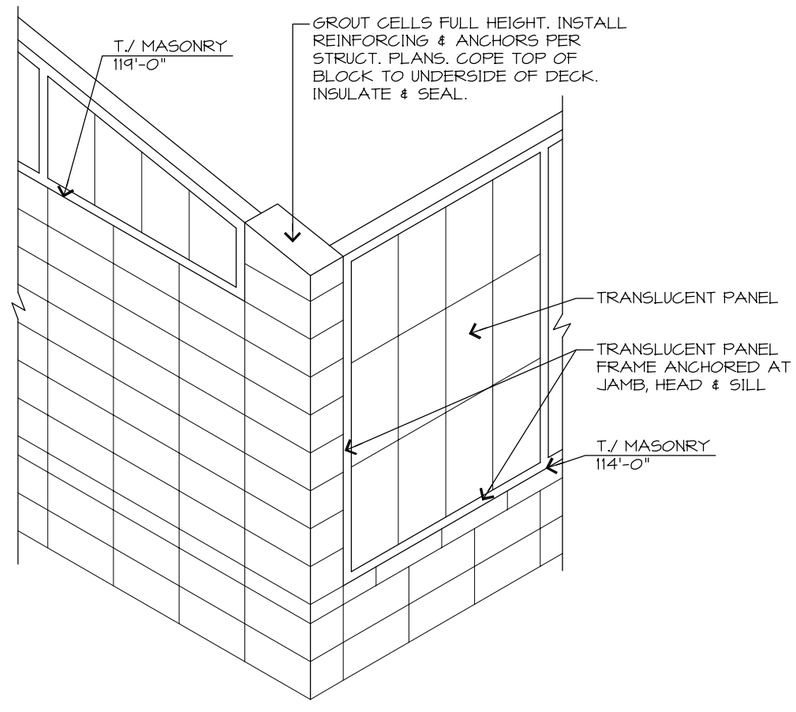
0 6" 1 2 3



3 HEAD DETAIL

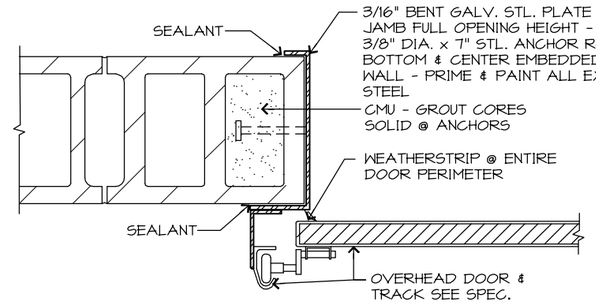
1/0"=1'-0"

0 3" 6" 1 1.5



1A TRANSULUCENT PANEL CORNER DETAIL

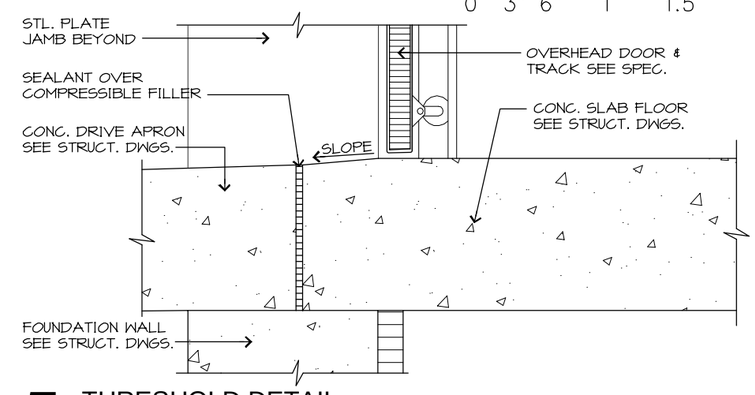
N.T.S.



4 JAMB DETAIL

1/0"=1'-0"

0 3" 6" 1 1.5

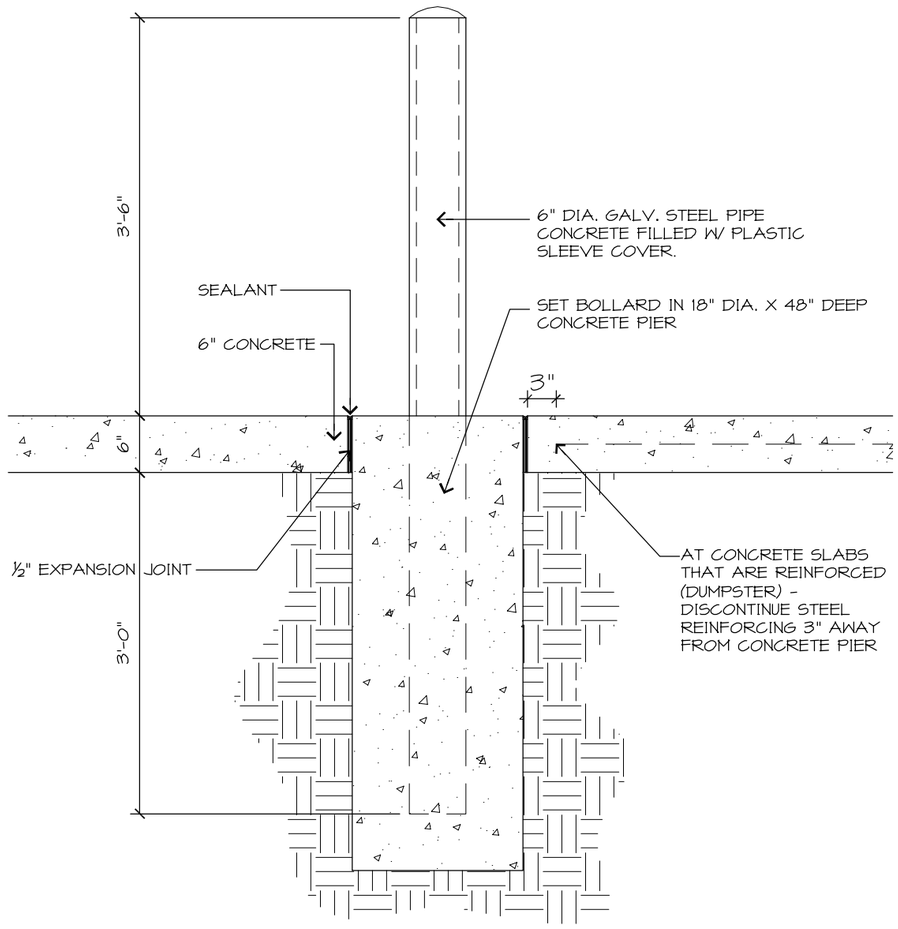


5 THRESHOLD DETAIL

1/0"=1'-0"

0 3" 6" 1 1.5

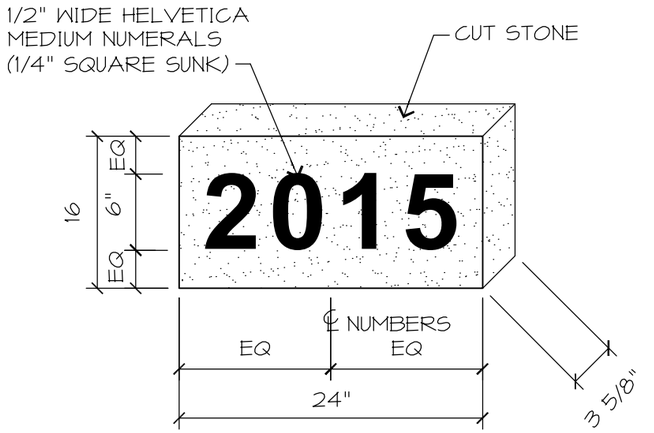
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DOOR DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 3" 6" 1 1.5	SHEET NO: A708	123



1 PIPE BOLLARD DETAIL

3/4"=1'-0"

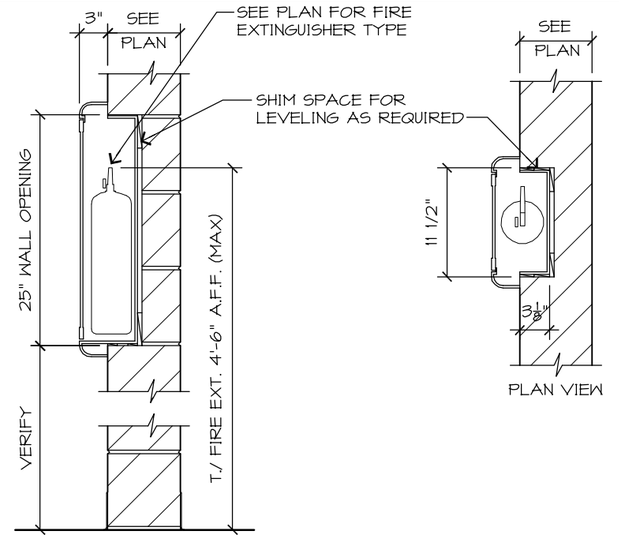
0 4" 8" 16" 24"



2 TYPICAL DATE STONE DETAIL

1"=1'-0"

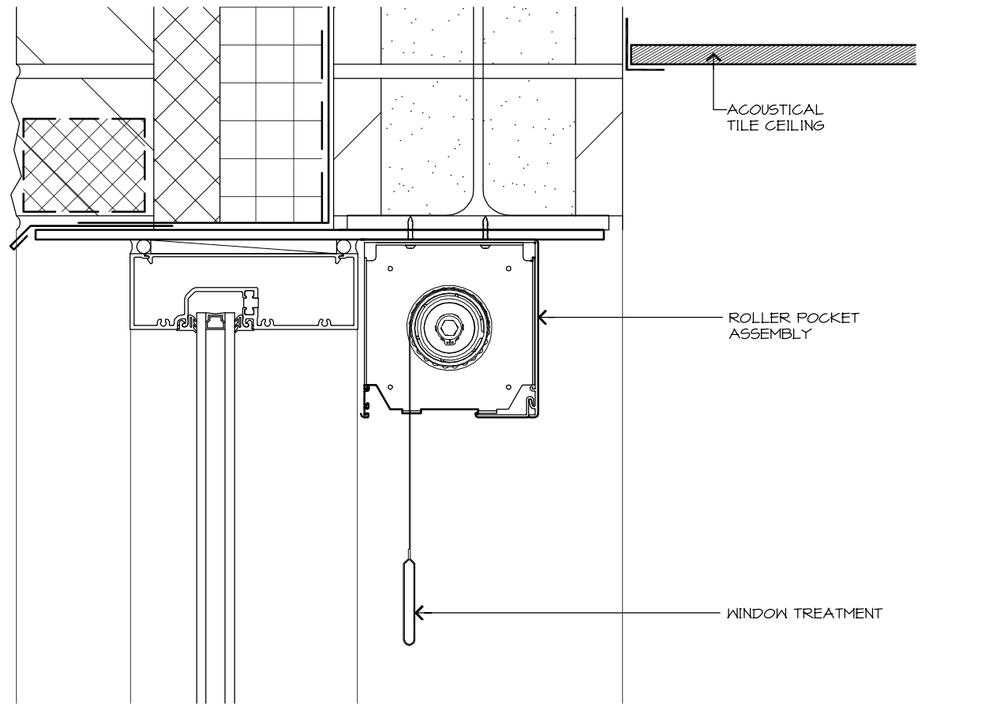
0 3" 6" 1 1.5



3 SEMI-RECESSED CABINET SECTIONS

3/4"=1'-0"

0 4" 8" 16" 24"



6 SOLAR SHADE POCKET MOUNT

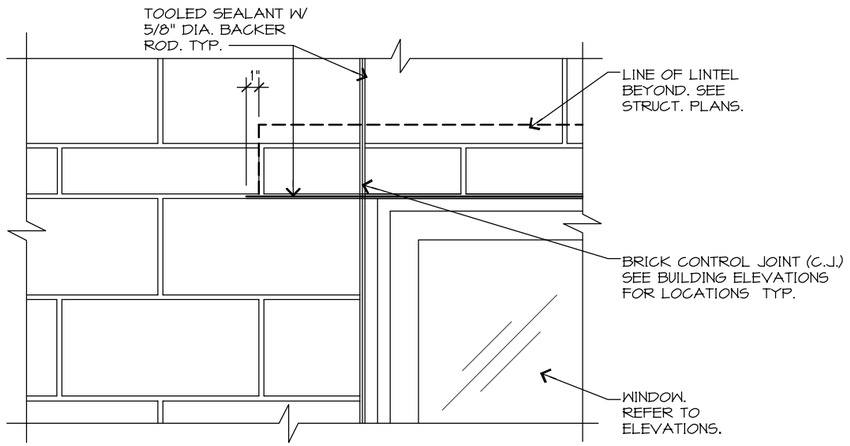
3"=1'-0"

0 1" 2" 4" 6"

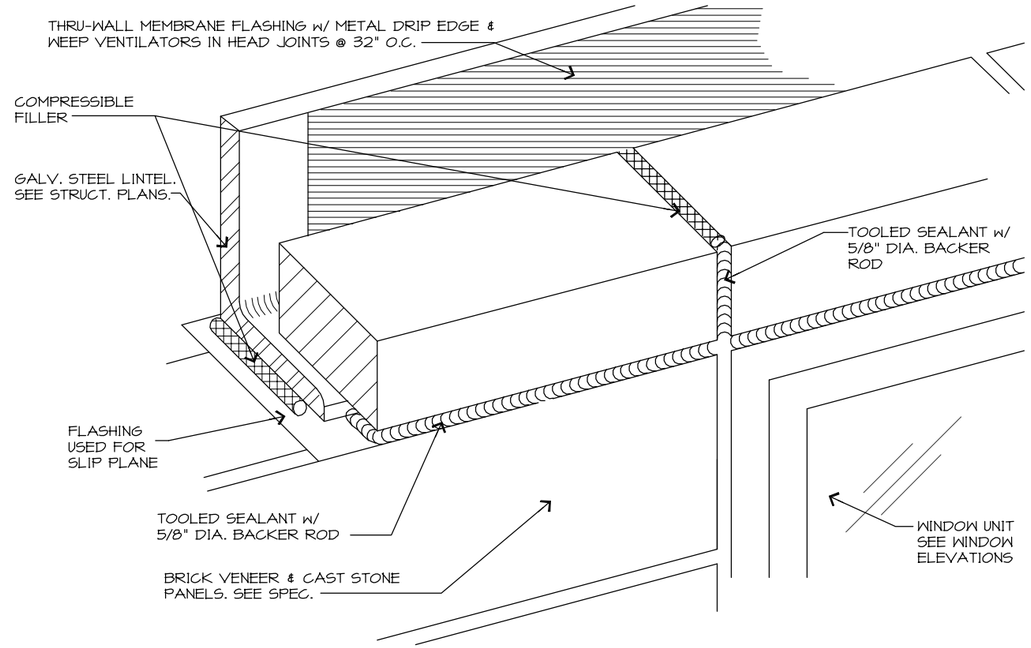
4 NOT USED

5 NOT USED

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DETAILS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A801



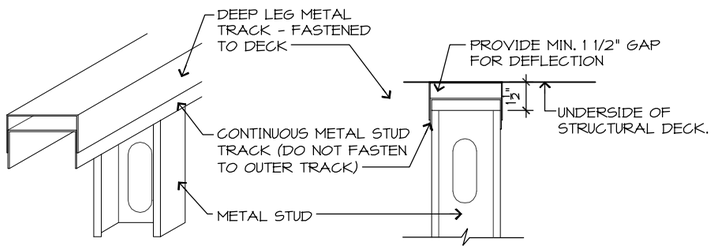
BLOCK CONTROL JOINT (C.J.)



ISOMETRIC VIEW

1 EXTERIOR CONTROL JOINT DETAIL

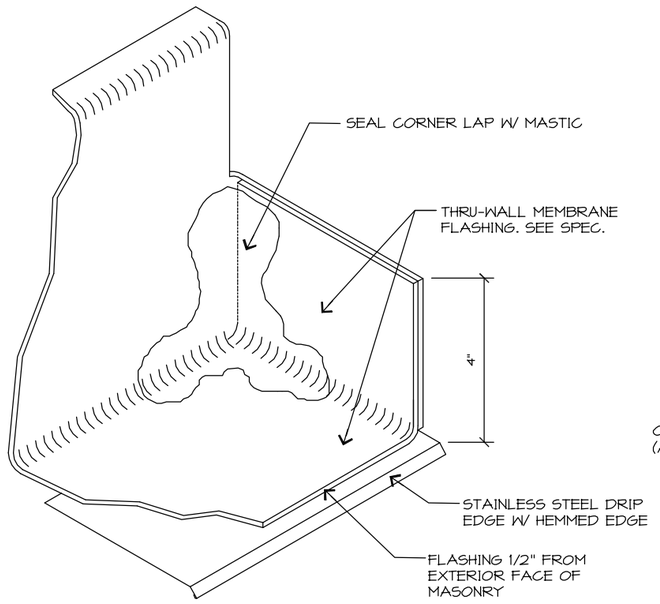
SCALE: VARIES



2 TYPICAL SLIP JOINT DETAIL

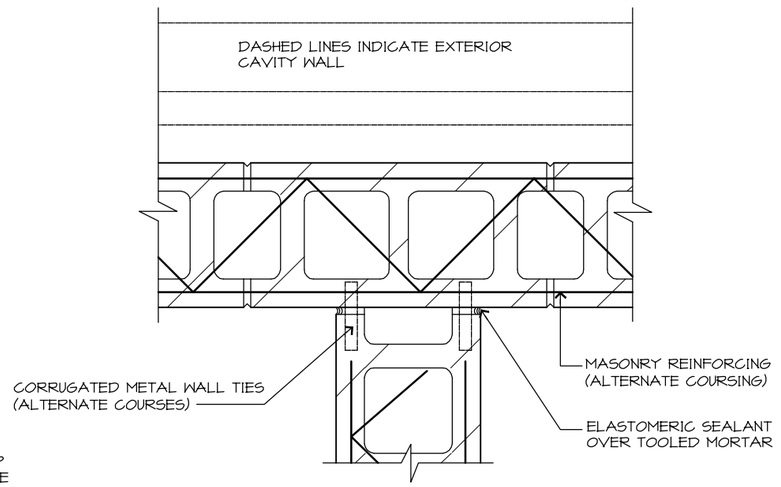
1-1/2"=1'-0"

0 2" 4" 8" 12"



3 THRU-WALL MEMBRANE END DAM

N.T.S.



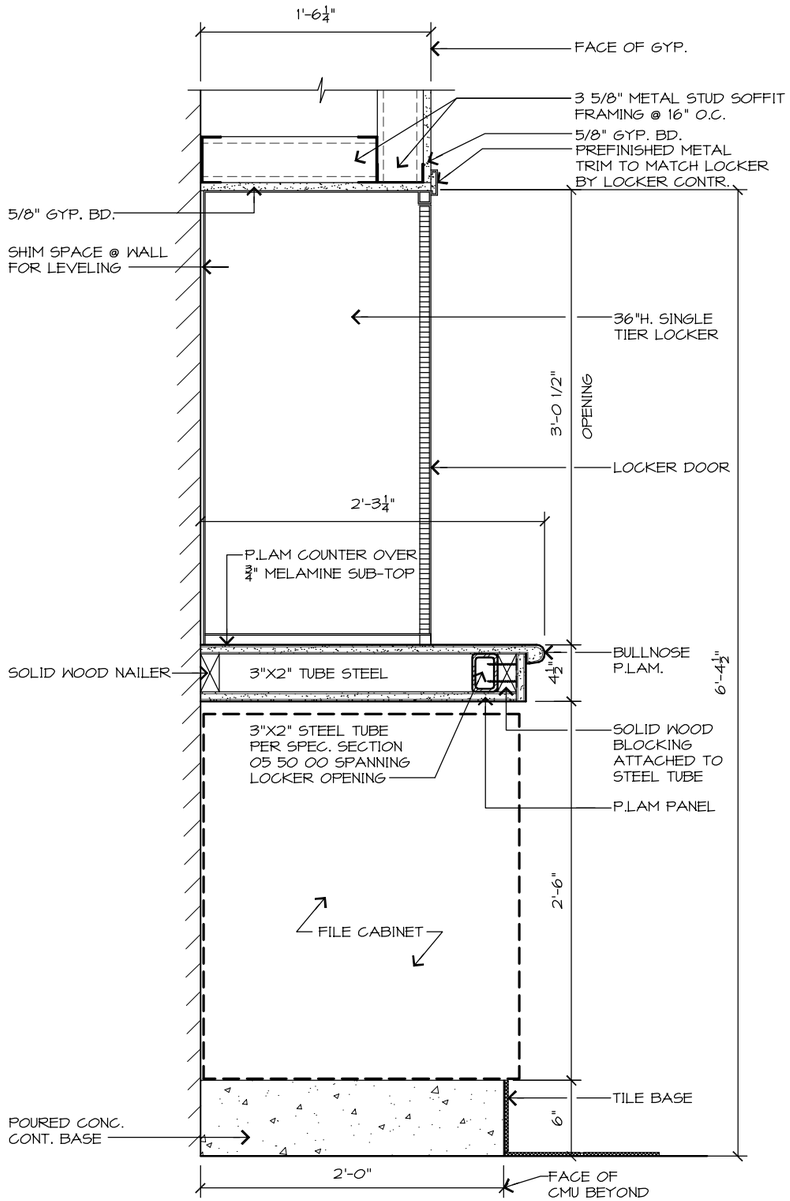
TYPICAL AT ALL PILASTERS, COLUMNS AND
INTERIOR & EXTERIOR WALL INTERSECTIONS

4 CONTROL JOINT @ WALL INTERSECTION

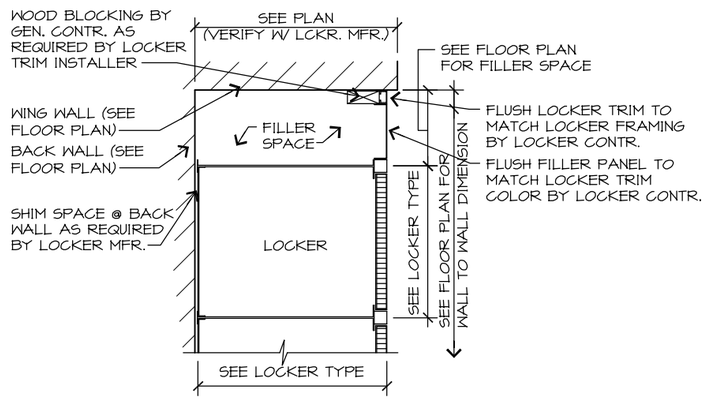
1 1/2"=1'-0"

0 2" 4" 8" 12"

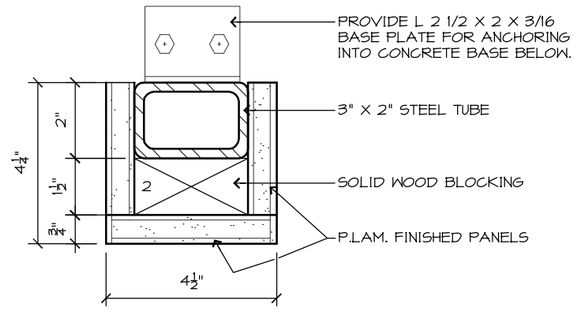
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DETAILS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A802



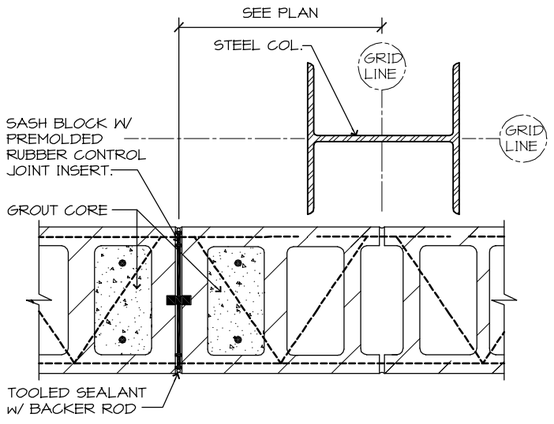
1 LOCKER OVER FILE CABINET DETAIL
1"=1'-0"



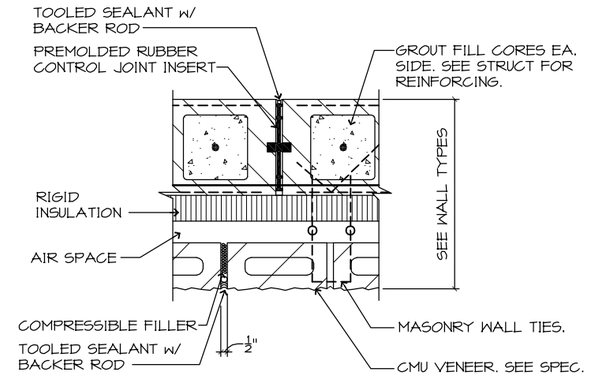
2 LOCKER FILLER PANEL DETAIL
1"=1'-0"



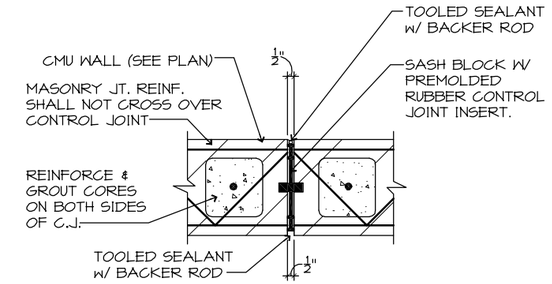
3 LOCKER SHELF CENTER SUPPORT
3"=1'-0"



4 C.J. @ SINGLE WYTHE EXTERIOR CMU
1"=1'-0"

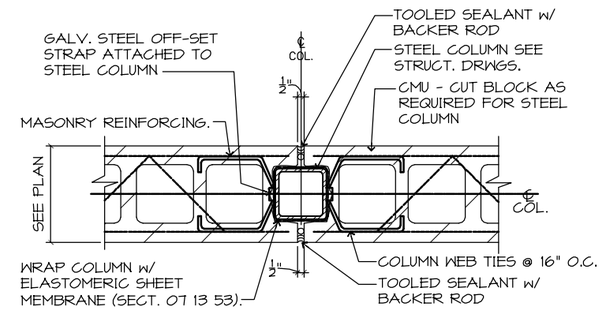


5 CONTROL JOINT @ CMU CAVITY WALL
1"=1'-0"



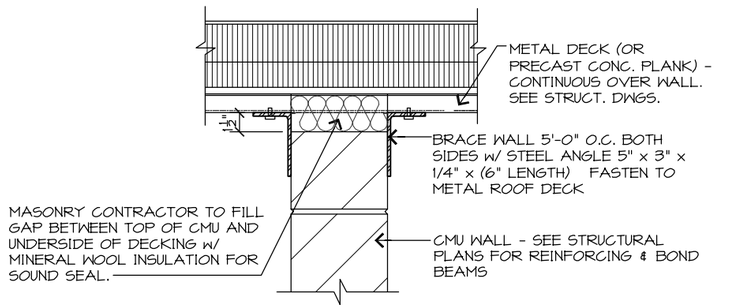
*PROVIDE AT ALL CONC. FLOOR COLD JOINTS & SAWCUTS

6 CONTROL JOINT @ INTERIOR CMU WALL
1"=1'-0"



7 CONTROL JOINT @ STEEL COLUMN
1"=1'-0"

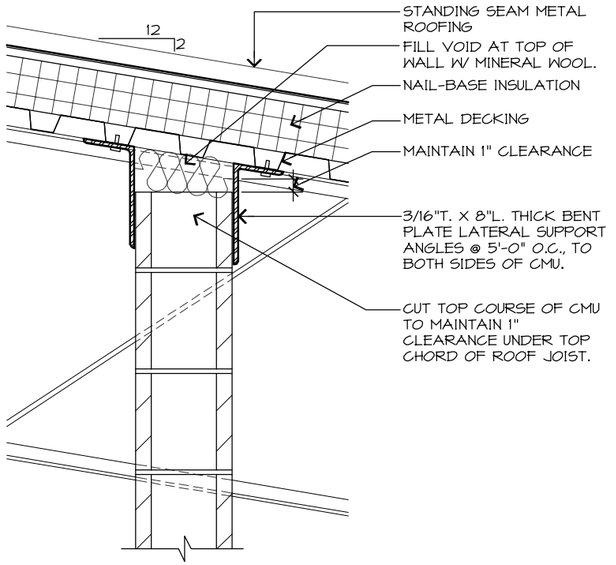
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DETAILS	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 3" 6" 1 1.5	SHEET NO: A803



1 CMU TOP OF WALL BRACING DETAILS

1"=1'-0"

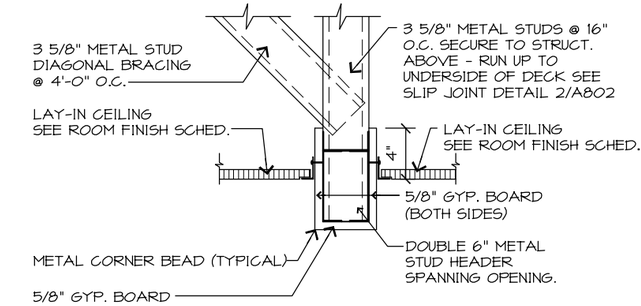
0 3" 6" 1 1.5



2 CMU TOP OF WALL BRACING DETAILS

1"=1'-0"

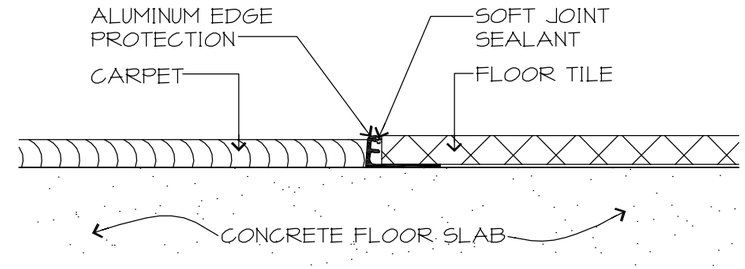
0 3" 6" 1 1.5



3 BULKHEAD SOFFIT DETAIL

1"=1'-0"

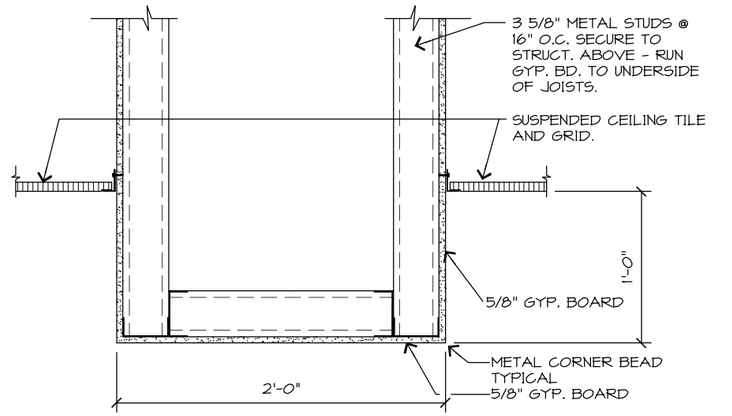
0 3" 6" 1 1.5



6 TRANSITION -FLOOR TILE TO CARPET

6"=1'-0"

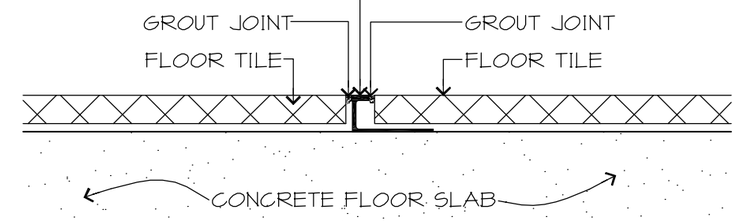
0 .5" 1" 2" 3"



4 METAL STUD & GYP. BD. SOFFIT

1"=1'-0"

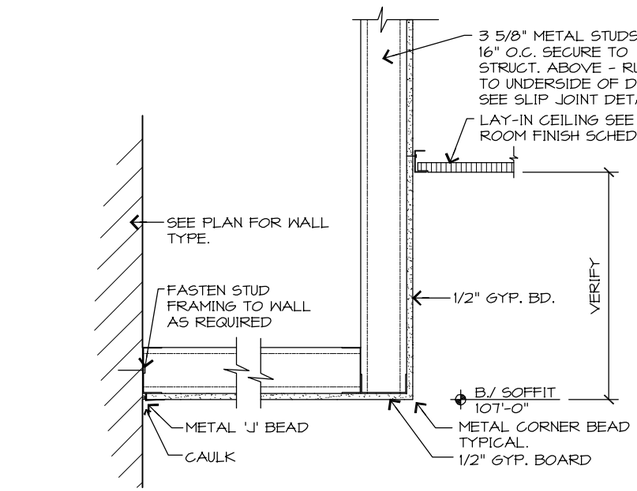
0 3" 6" 1 1.5



5 FLOOR TILE MOVEMENT JOINT

6"=1'-0"

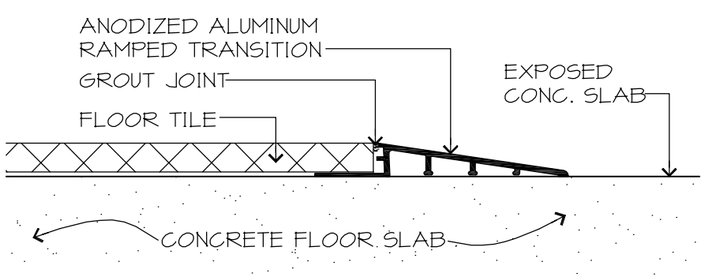
0 .5" 1" 2" 3"



9 TYPICAL SOFFIT DETAIL

1"=1'-0"

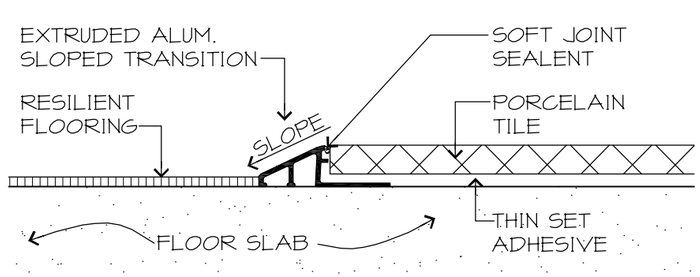
0 3" 6" 1 1.5



7 TRANSITION -FLOOR TILE TO EXPOSED SLAB

6"=1'-0"

0 .5" 1" 2" 3"



8 TRANSITION - FLOOR TILE TO RESILIENT FLOORING

6"=1'-0"

0 .5" 1" 2" 3"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			DETAILS		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE:	SHEET NO: A804	

ROOM FINISH SCHEDULE

ROOM NAME	Scale Tunnel	Vestibule	Storage	Storage	Women's Toilet	Men's Toilet	Toilet	Janitor	Public Lobby	Driver's Room	Intox	Operations	Corridor	Office	Multi-Purpose	Telecom	Mechanical	Inspection	Inspection Pit	Inspect. Tunnel
ROOM NO.	001	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	117A &B	002
FLOORING																				
Substrate	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.	CONC.
Finish/Color	SEALED	PT-1 / FG	HTCS	SEALED	PT-1	PT-1	PT-1	SEALED	PT-1	PT-1	PT-1	PT-1	PT-1	CPT-1	SV-1	SEALED	SEALED	H.T.C.S.	H.T.C.S.	H.T.C.S.
BASE																				
Type/Color	CONC.	PT-2	CMU / P-4	CMU / P-4	PT-2	PT-2	PT-2	CMU / P-4	PT-2	PT-2	PT-2	PT-2	PT-1	CPT-1	VB-1	CMU/P-4	CMU/P-4	H.T.C.S.	H.T.C.S.	H.T.C.S.
WALLS																				
NORTH WALL																				
Substrate	CONC.	G.F.CMU	CMU	CMU	CMU	CMU	CMU	CMU	G.F.CMU	G.F.CMU	G.F.CMU	G.F.CMU	G.F.CMU/GYP BD	G.F.CMU	G.F.CMU	CMU	CMU	G.F.CMU	CONC.	CONC.
Finish/Color	SEALED	SEALED	P-4	P-4	WCT-1	WCT-1	WCT-1	P-4	SEALED	SEALED	SEALED	SEALED	SEALED/P-4	SEALED	SEALED	P-4	P-4	SEALED	H.T.C.S.	H.T.C.S.
EAST WALL																				
Substrate	CONC.	G.F.CMU	CMU	CMU	CMU	CMU	CMU	CMU	G.F.CMU	G.F.CMU	G.F.CMU	G.F.CMU/GLS	G.F.CMU	G.F.CMU	G.F.CMU	CMU	CMU	G.F.CMU	CONC.	CONC.
Finish/Color	SEALED	SEALED	P-4	P-4	WCT-1	WCT-1	WCT-1	P-4	SEALED	SEALED	SEALED	SEALED	SEALED	SEALED	SEALED	P-4	P-4	SEALED	H.T.C.S.	H.T.C.S.
SOUTH WALL																				
Substrate	CONC.	G.F.CMU/ GLS.	CMU	CMU	CMU	CMU	CMU	CMU	G.F.CMU	G.F.CMU	G.F.CMU	GYP.BD. /GLS	G.F.CMU	G.F.CMU	G.F.CMU	CMU	CMU	G.F.CMU	CONC.	CONC.
Finish/Color	SEALED	SEALED	P-4	P-4	WCT-1	WCT-1	WCT-1	P-4	SEALED	SEALED	SEALED	P-4	SEALED	SEALED	SEALED	P-4	P-4	SEALED	H.T.C.S.	H.T.C.S.
WEST WALL																				
Substrate	CONC.	G.F.CMU/ GLS.	CMU	CMU	CMU	CMU	CMU	CMU	G.F.CMU	G.F.CMU	G.F. CMU	GYP.BD. /GLS		G.F.CMU	G.F.CMU	CMU	CMU	G.F.CMU	CONC.	CONC.
Finish/Color	SEALED	SEALED	P-4	P-4	WCT-1	WCT-1	WCT-1	P-4	SEALED	SEALED	SEALED	P-4		SEALED	SEALED	P-4	P-4	SEALED	H.T.C.S.	H.T.C.S.
CEILING																				
Material	CONC.	GYP. BD.	CONC. PLANK	GYP. BD.	GYP.BD.	GYP.BD.	GYP.BD.		GYP. BD.		GYP.BD.					STRUCT.	STRUCT.	STRUCT.		CONC.
Finish/Color	SEALED	P-1	P-1	P-1	P-1	P-1	P-1	AT-1	P-1	AT-1	P-1	AT-1	AT-1	AT-1	AT-1	P-1	P-1	P-1		HTCS
Height		9'-4"	11'-4"	9'-4"	8'-8"	8'-8"	8'-8"	8'-8"	11'-4"	10'-0"	8'-8"	10'-0"	9'-4	9'-4"	9'-4"	VARIES	VARIES	VARIES		
FRAMES																				
Material	H.M.	ALUM./ H.M.	H.M.	H.M.	H.M.	H.M.	H.M.	H.M.	ALUM. / H.M.	H.M.	H.M.	ALUM.	H.M.	H.M.	H.M.	H.M.	H.M.	H.M.		
Finish/Color	P-2	Pre.Fin./ P-2	P-2	P-2	P-2	P-2	P-2	P-2	PRE.FIN. / P-2	P-2	P-2	Pre.Fin.	P-2	P-2	P-2	P-2	P-2	P-2		
DOORS																				
Material	H.M.	ALUM./ H.M.	H.M.	WD.	WD.	WD.	WD.	WD.	ALUM. / W.D.	WD.	WD	ALUM.	H.M./WD	WD.	WD.	H.M.	H.M.	H.M.		
Finish/Color	P-2	Pre.Fin./ P-2	P-2	Pre-fin.	Pre-fin.	Pre-fin.	Pre-fin.	Pre-fin.	Pre-fin.	Pre-fin.	Pre-fin.	Pre-Fin.	P-2/Pre-fin.	Pre-Fin.	Pre-Fin.	P-2	P-2	P-2		
CASEWORK																				
Countertops			PLAM-2	PLAM-2				PLAM-2			PLAM-1	S.SURF-1			PLAM-1					
Casework Face											PLAM-2	PLAM-2			PLAM-2					
MISC. EQUIP.																				
Window Stools									S.SURF.-2	S.SURF.-2	S.SURF.-2	S.SURF.-2		S.SURF.-2	S.SURF.-2					
REMARKS																				
Remark No.										**2**	**2**		**1**	**2**	**3**			**4,6**	**5,6**	**5,6**
Window Trtmnt										WT-3	WT-1	WT-3		WT-1,2	WT-2					
Lockers				LO									LO							

ABBREVIATIONS

AT	ACOUSTICAL TILE	P	PAINT
AL	ALUMINUM	PF	PREFINISHED
BLIND	ALUMINUM BLIND	PLAM	PLASTIC LAMINATE
CMU	CONCRETE MASONRY UNIT	PT	PORCELAIN TILE
CONC	CONCRETE	S	SEALED
CPT	CARPET	S.SURF	SOLID SURFACE
CT	CERAMIC TILE	STRUCT	STRUCTURE
F.GRID	FLOOR WALK OFF GRID	SV	SHEET VINYL
GFCMU	GROUND FACE CONCRETE MASONRY UNIT	VB	VINYL BASE
GYP BD	GYPSUM BOARD	WCT	WALL CERAMIC TILE
HM	HOLLOW METAL	WD	WOOD
HTCS	HIGH TRAFFIC COATING SYSTEM	WT	WINDOW TREATMENT

ROOM FINISH SCHEDULE REMARKS

REMARK #1 SEE DETAILS OF PLASTIC LAMINATE LOCKER SHELF ON SHEET A803.

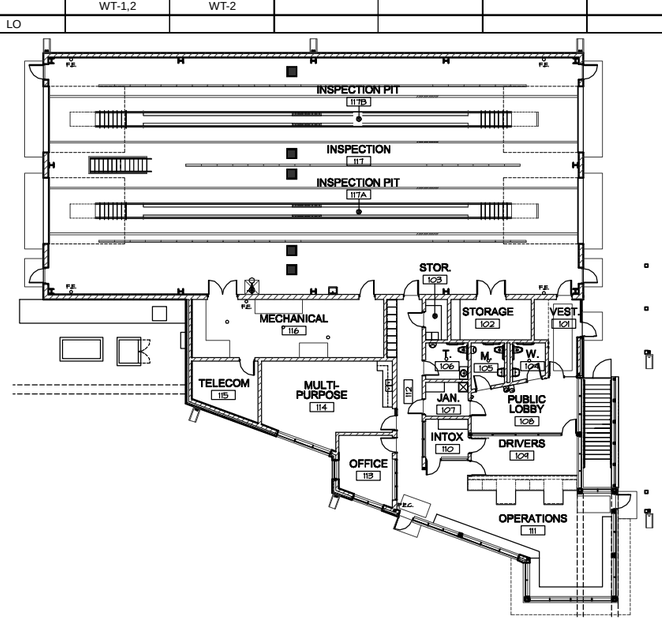
REMARK #2 PROVIDE SOLID SURFACE WINDOW STOOL ON INSIDE OF BORROWED LITE FRAME.

REMARK #3 PROVIDE STITCHED CARPET BASE.

REMARK #4 COVE H.T.C.S. UP WALL 8"

REMARK #5 APPLY HIGH TRAFFIC COATING SYSTEM TO ALL HORIZONTAL & VERTICAL PIT SURFACES, INCLUDING STAIRS AND CONNECTOR TUNNEL.

REMARK #6 PAINT INTERIOR GUARDRAILS, HANDRAILS, EDGE GUARDS SAFETY YELLOW.



1 KEY PLAN

1/32"=1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI

STATE PROJECT NUMBER: 1190–43–71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS

ROOM FINISH SCHEDULE

SUPERIOR SAFETY & WEIGHT FACILITY NO. 72

SCALE: 0 8 16 32 48

DATE: 04/1/14 | FINAL PS&E

SHEET NO: A901

ABBREVIATIONS

AT.	Acoustical Tile
AL	Aluminum
BLIND	Aluminum Blinds
CMU	Concrete Masonry Unit
CONC	Concrete
CPT	Carpet
CT	Ceramic Tile
F.GRID	Floor Walk Off Grid
GFCMU	Ground Face Concrete Masonry Unit
GYP BD	Gypsum Board
HM	Hollow Metal
H.T.C.S.	Coating System
P	Paint
PF	Prefinished
P.LAM.	Plastic Laminate
PT	Pocerlain Tile
S	Sealed
S. SURF.	Solid Surface
STRUCT	Structure
SV.	Sheet Vinyl
VB	Vinyl Base
WCT.	Wall Tile
WD	Wood
WT	Window Treatment

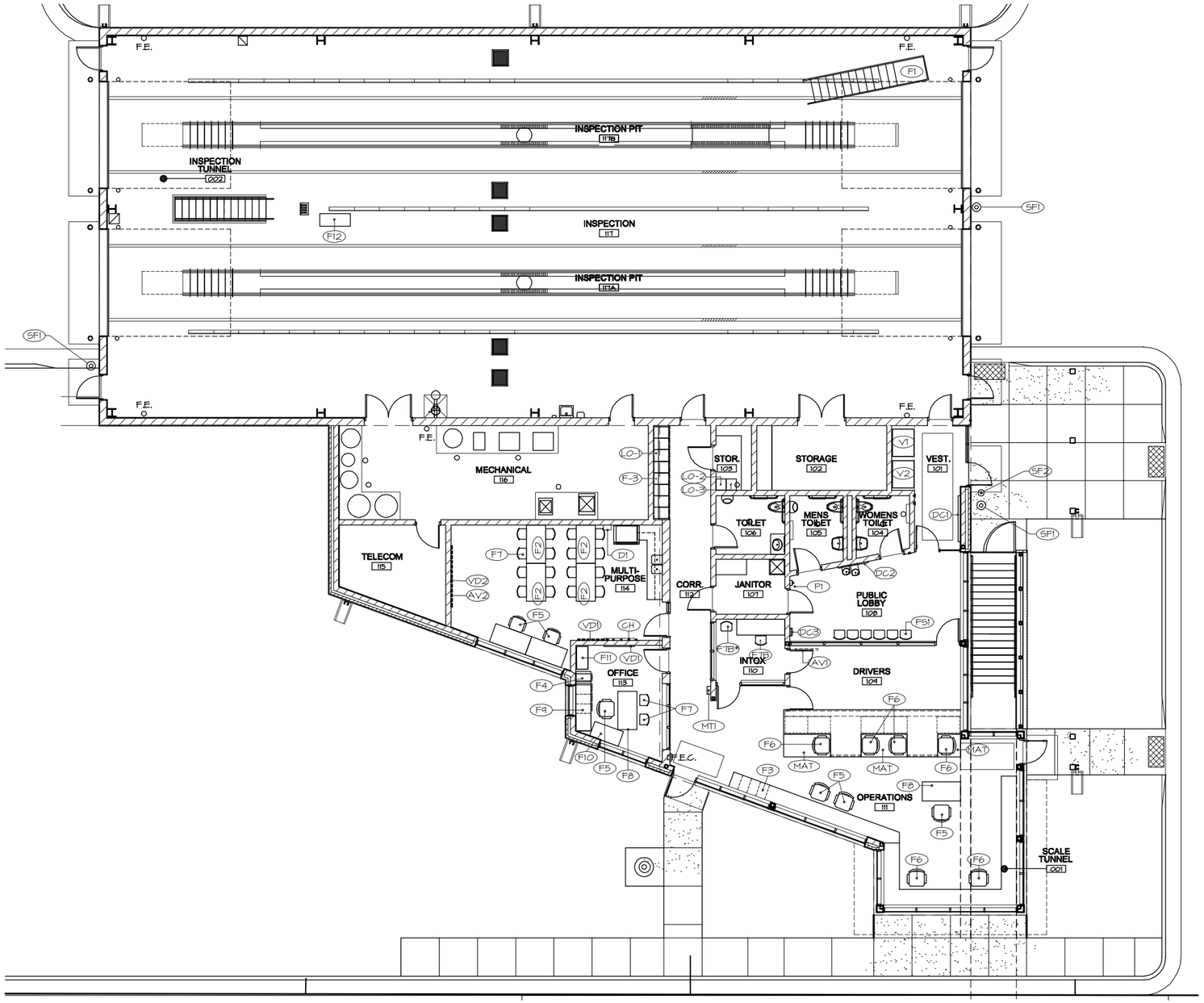
REMARKS

1. FIELD-APPLIED SEAL COAT PER SPEC. SECTION 12 50 00.
2. PLAM-3 TO MATCH FURNITURE MANUFACTURER DESK (F-8) FINISH.
3. P-3 TO MATCH CUSTOM METAL FASCIA AND ROOF COLORS. PAINT ALL EXTERIOR GUARD RAILINGS P-3.

COLOR SCHEDULE

DIVISION	LABEL	MFG.	SIZE	PATTERN	COLOR	NOTES
04 20 00 - Unit Masonry	CMU-1	County Materials	See Spec.		Standard Gray	
	CMU-2	Premier Block	See Spec.		Antique White	
	CMU-3	Premier Block	See Spec.		Antique White	
	CMU-3A	Premier Block	See Spec.		Antique White	
	CMU-4	Premier Block	See Spec.		Sandstone	
	CMU-5	Premier Block	See Spec.		Sienna Cream	
06 40 00 - Architectural	P.LAM.-1	Formica or Equal		Rosso Granite	3917-58	
Woodwork	P.LAM.-2	Formica or Equal		Cocoa Leather	3515-58	
	S.SURF.-1	Meganite or Equal		Granite	Saddlebrown 668	
	S.SURF.-2	Meganite or Equal		Granite	Sanibel 691	
08 14 16 - Flush Wood Doors	WD-1	Graham or Equal		Red Oak	#901 Burgundy	
09 31 00 - Tiling	P.T-1	Daltile or Equal	6"x 6"	Terra Antica	Oro TA01	
	P.T-1	Daltile or Equal	12"x 12"	City View	Downtown Nite CY04	
	WCT-1	Daltile or Equal	6"x 6"	Brixton	Bone BX01	
09 51 00 - Acoustical Ceiling	AT-1	Armstrong or Equal	2' x 2'	#1732 White	Fine Fissured	
09 65 00 - Resilient Flooring	SV-1	Polyflor or Equal		2000-pur	Stonewall	
	VB-1	Armstrong or Equal	4" H.		61 Graphite Gray	
09 68 00 - Carpet	CPT-1	Interface or Equal	19" sq.	Kamala II	101857 Sake	
09 96 00 - High Performance Coating	H.T.C.S.	Tennant			Medium Grey	
09 90 00 - Painting	P-1	Sherwin Williams or EQ.		SW 7006	SW 7066 Extra White	
	P-2	Sherwin Williams or EQ.		SW 6328	SW6328 Firewood	
	P-3	Sherwin Williams or EQ.		SW6328	SW6328 Custom Color Match	
	P-4	Sherwin Williams or EQ.		SW 7012	SW7012 Creamy	
12 20 00 - Window Treatment	WT-1	Hunter Douglas or EQ.			D1-127 'Linen Flirt'	
	WT-2	Mechoshade			#2104 Black/Brown	
	WT-3	Mechoshade			0606 Smoke/Silver-Smoke	
	Blind	Hunter Douglas or EQ.		Aluminum 1"		
12 48 16 - Floor Grids	F.GRID	Balco or Equal		Epoxy w/ grit	ABRV Brown Bark	

Location	Spec #	Label	Qty	Description	Provided By
Outdoor	12 93 00	SF-1	3	Trash receptacle (concrete aggregate)	Contractor
	12 93 00	SF-2	1	Cigarette receptacle snuffer	Contractor
		R-1	1 each	Exterior recycling receptacles	Owner
Vestibule		V-1	1	Vending machine - drinks	By Owner
101		V-2	1	Vending machine - snacks	By Owner
	10 12 00	DC-1	1	Enclosed map case 6' x 4'	Contractor
Storage 103	10 51 00	LO-2	1	Single tier locker	Contractor
	10 51 00	LO-3	1	5 tier locker	Contractor
Public Lobby	12 65 00	FS-1	6	Fixed seating	Contractor
108	10 12 00	DC-2	1	Interior enclosed map case 3' x 3'-8"	Contractor
	10 12 00	DC-3	2	Wall mounted brochure display	Contractor
		P-1	1	Courtesy Phone	Contractor
Drivers Room	11 52 00	AV-1	1	Bracket for weather monitor	Contractor
109					
Intox Room 110	12 50 00	F-7B*	1	Guest chair - attached to floor	Contractor
		F-7B	1	Guest chair	Contractor
Operations 111	12 50 00	F-5	3	Task chair - standard height	Contractor
	12 50 00	F-6	6	Task chair - high counter height	Contractor
	12 50 00	F-3	4	File pedestals F/F	Contractor
	12 48 16	Mat	3	Anti-fatigue floor	Contractor
		R-2	1 each	Interior recycling receptacles	Owner
	11 72 53	MT-1	1	Defibrillator	Contractor
		F8	1	60" x 30" desk	
Corridor 112	10 51 00	LO-1	8	Metal Lockers	Contractor
	12 50 00	F-3	9	File cabinets	Contractor
Office 113	12 50 00	F-5	1	Task chair - standard height	Contractor
	12 50 00	F-7	2	Guest chair - standard height	Contractor
	12 50 00	F-8	1	60" x 30" desk	Contractor
	12 50 00	F-9	1	Work surface credenza	Contractor
	12 50 00	F-4	1	Vertical file - 4 drawer	Contractor
	12 50 00	F-11	1	Book shelf	Contractor
	10 11 00	VD-1	1	Tack board 4' x 4'	Contractor
	12 50 00	F10	1	24" x 48" side table	Contractor
Multi- Purpose	12 50 00	F-5	2	Task chair - standard height	Contractor
Room 114	12 50 00	F-7	16	Guest chair - standard height	Contractor
	12 50 00	F-2	6	Tables 30" x 60"	Contractor
	10 11 00	VD-1	1	Tack board 4' x 4'	Contractor
	10 11 00	VD-2	1	Marker board 8' x 4'	Contractor
	11 52 00	AV-2	1	Projector screen-manual	Contractor
	10 28 00	D-1	1	Paper towel dispenser	Contractor
	10 28 00	CH	4	Coat hooks	Contractor
			1	Bottled water cooler	By Owner
Inspection 117	12 50 00	F-1	1	Movable stair	Contractor
		F-12	1	Work table	Contractor



1 FIXTURE, FURNITURE & EQUIPMENT PLAN

1/16"=1'-0"

Plan North

True North

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FIXTURES, FURNITURE & EQUIPMENT PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 SCALE: 0 4 8 16 24	SHEET NO: A903	130

WINDOW TREATMENT SYMBOLS LEGEND

- WT-1 — HORIZONTAL WINDOW BLINDS
- WT-2 — ROLLING FABRIC SOLAR SHADES
- WT-3 — ROLLING TINTED FILM SOLAR SHADE

F.E.

MECHANICAL 116

STOR. 103

STORAGE 102

VEST. 101

TOILET 106

MENS TOILET 105

WOMENS TOILET 104

TELECOM 115

MULTI-PURPOSE 114

CORR. 112

JANITOR 107

PUBLIC LOBBY 108

INTOX 110

OFFICE 113

DRIVERS 109

OPERATIONS 111

WT-1 WT-2 WT-3

F.E.C.

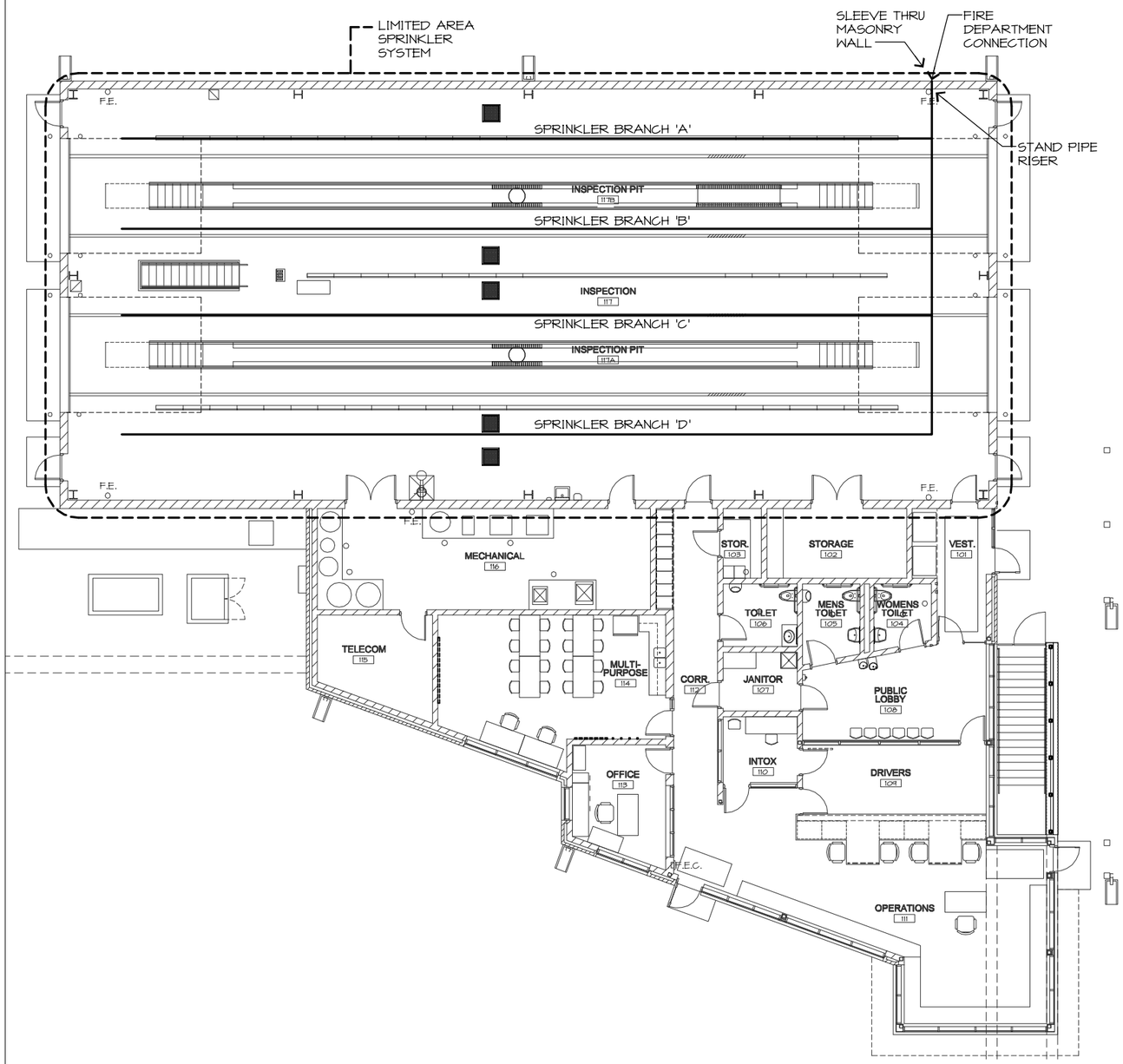
F2 F7 G1 H

Plan North / True North

1 WINDOW TREATMENT PLAN

1/8"=1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			WINDOW TREATMENT PLAN		DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 2 4 8 12	SHEET NO: A904	131



1 FIRE SUPPRESSION PLAN

1/16"=1'-0"

Plan North

True North

FIRE PROTECTION GENERAL NOTES

A. DESIGN AND INSTALLATION SHALL CONFORM TO NFPA 13, 2010 EDITION.

B. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE ALL PLANNING AND ENGINEERING OF A COMPLETE SPRINKLER SYSTEM. DRAWINGS SHALL INDICATE ALL REQUIRED PIPING, OFFSETS, SPRINKLER HEAD LOCATIONS AND DROPS. REFER TO SECTION 01 33 00 - SUBMITTAL PROCEDURES.

C. THE FIRE PROTECTION CONTRACTOR SHALL SECURE ALL PERMITS AND PAY FOR ALL FEES REQUIRED BY AUTHORITY HAVING JURISDICTION AND STATE OF WISCONSIN FOR PLAN REVIEW SUBMITTALS.

D. PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO INSTALL A COMPLETE AND OPERABLE FIRE PROTECTION SYSTEM COMPLYING WITH THE NFPA, FACTORY MUTUAL AND ALL STATE OF WISCONSIN, DEPT. OF SAFETY AND PROFESSIONAL SERVICES, SAFETY & BUILDINGS DIVISION.

E. APPROVAL OF THE COMPLETE SYSTEM SHALL BE OBTAINED FROM THE STATE OF WISCONSIN STATE OF WISCONSIN, DEPT. OF SAFETY AND PROFESSIONAL SERVICES, SAFETY & BUILDINGS DIVISION AND AUTHORITY HAVING JURISDICTION

F. THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL DEVICES, STRUCTURES AND FINISHES DAMAGED BY INSTALLATION OF THE SPRINKLER SYSTEM.

G. THE FIRE PROTECTION CONTRACTOR SHALL COORDINATE ALL SPRINKLER PIPING AND HEAD LOCATIONS WITH DUCTWORK, PIPING, LIGHTING FIXTURES, DIFFUSERS, ETC. AS REQUIRED.

H. HANGER INSTALLATION AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13, 2010 EDITION.

I. THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR SLEEVING THRU ALL WALLS AS NECESSARY FOR THE ROUTING OF PIPING.

J. ALL PIPING 2" AND SMALLER SHALL BE SCHEDULE 40. PIPING 2-1/2" AND LARGER SHALL BE SCHEDULE 10 PIPE WITH GROOVED FITTINGS. DRY SECTIONS EXPOSED TO THE EXTERIOR SHALL BE SCHEDULE 40 GALVANIZED WITH GALVANIZED FITTINGS.

K. ALL EXPOSED FIRE SUPPRESSION PIPING SHALL BE SURFACE PREPPED AND PAINTED PER SECTION 09 90 00

L. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES, EXPOSED STRUCTURE AND CEILING DEVICES. COORDINATE PIPE ROUTING AND HEAD LAYOUT TO PROVIDE A CLEAN SYMMETRICAL INSTALLATION WITH DUCTWORK, LIGHTING, ETC.

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FIRE SUPPRESSION PLAN	DATE: 04/1/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE: 0 4 8 16 24	SHEET NO: F101

GENERAL NOTES

1.1 GENERAL:

1.1.1 GENERAL: THE FOLLOWING GENERAL AND SPECIFIC NOTES SHALL APPLY EQUALLY TO ALL CONTRACTORS AND SUPPLIERS ENGAGED IN EXECUTION OF THE WORK SHOWN ON THESE PLANS. THESE NOTES SUPPLEMENT AND ARE MADE A PART OF THE ENTIRE CONTRACT DOCUMENTS AND SPECIFICATIONS.

1.1.2 REFERENCES: ALL CONSTRUCTION SHALL BE EXECUTED IN CONFORMANCE WITH THE FOLLOWING:
- PLANS AND SPECIFICATIONS
- GOVERNING STATE, LOCAL AND MUNICIPAL CODES
- AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
- OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)

CONCRETE CONSTRUCTION:
- AMERICAN CONCRETE INSTITUTE (ACI),

MASONRY CONSTRUCTION:
- AMERICAN CONCRETE INSTITUTE (ACI)
- THE MASONRY SOCIETY (TMS)
- STRUCTURAL ENGINEERING INSTITUTE (SEI)

STRUCTURAL AND MISCELLANEOUS STEEL WORK:
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

STEEL JOIST, STEEL DECK AND ACCESSORIES:
- STEEL JOIST INSTITUTE (SJI)
- STEEL DECK INSTITUTE (SDI)

COLD FORMED METAL FRAMING:
- AMERICAN IRON AND STEEL INSTITUTE (AISI)

WOOD CONSTRUCTION & TRUSSES:
- NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION
- AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)
- AMERICAN PLYWOOD ASSOCIATION (APA)
- TRUSS PLATE INSTITUTE (TPI)

CONTRACTOR SHALL ENSURE FAMILIARITY OF THE ABOVE ITEMS. ARCHITECT AND/OR ENGINEER INSPECTIONS WILL BE IN CONFORMANCE WITH THE ABOVE.

1.1.3 DESIGN DATA:

FLOOR AND ROOF LIVE LOADS:

SCALE	100 PDF
SCALE MECHANICAL	ACTUAL WEIGHTS
INSPECTION - 12" SLAB	HS25 TRUCK
INSPECTION - 5" SLAB ON GRADE	100 PSF
STAIRS AND EXITS	100 PSF

ROOF SNOW LOADS:

GROUND SNOW LOAD, Pg	60 PSF
EXPOSURE FACTOR, Ce	1.0
THERMAL FACTOR, Ct	1.0
IMPORTANCE FACTOR, Is	1.0
FLAT ROOF SNOW LOAD Pf = 0.7xCexCtxIsxPg	42.0 PSF
ROOF SLOPE FACTOR Cs	1.0
SLOPED ROOF SNOW LOAD Ps = CsxPf	42.0 PSF

ROOF DEAD LOADS:

SLOPED ROOF	20 PSF

WIND LOADS:

BASIC WIND SPEED, V	90 MPH
BUILDING CLASSIFICATION	CATEGORY II
IMPORTANCE FACTOR, Iw	1.0
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFFICIENT Gcpi	+/- 0.18

SEISMIC DATA:

SEISMIC USE GROUP	CATEGORY II
IMPORTANCE FACTOR, Ie	1.0
SPECTRAL RESPONSE COEFFICIENT, SDS = 2/3 SMS	0.059g
SPECTRAL RESPONSE COEFFICIENT, SD1 = 2/3 SM1	0.029g
SITE CLASS	D
SEISMIC DESIGN CATEGORY	A
DESIGN BASE SHEAR	12.1 KIPS
ANALYSIS PROCEDURE	SIMPLIFIED ANALYSIS PER 1617.5
FORCE RESISTING SYSTEM	ORDINARY STEEL MOMENT FRAME

COMPONENTS AND CLADDING DESIGN CRITERIA:
REFER TO ASCE 7-05 FIGURES 6-11A THROUGH 6-11D FOR ZONE DIAGRMAS

SEE COMPONENTS AND CLADDING SPREADSHEET FOLLOWING THESE GENERAL NOTES

1.1.4 DESIGN CRITERIA:

REPORTED SOIL BEARING CAPACITY . . . . . 3000 PSF

GEOTECHNICAL REPORT:
REFER TO GEOTECHNICAL ENGINEERING EXPLORATION AND ANALYSIS PREPARED BY: SOILS & ENGINEERING SERVICES, INC. DATED JULY 24, 2002. SES PROJECT NUMBER 12185.

CONCRETE:

FOOTINGS	f'c = 3000 PSI
COLUMNS & PIERS	f'c = 4000 PSI
WALLS, BEAMS AND SLABS	f'c = 4000 PSI
GROUND SLABS	f'c = 4000 PSI
BOND BEAMS	f'c = 3000 PSI
EXTERIOR SLABS	f'c = 3500 PSI

MASONRY:

UNIT STRENGTH METHOD	f'm = 2400 PSI
GROUT	f'c = 2000 PSI

REINFORCING STEEL:

#2 & #3 BARS A615-40	Fy = 40000 PSI
#4 BARS & LARGER A615-60	Fy = 60000 PSI
PRESTRESSED ASTM A416,GRADE 270	Fy =270000 PSI

STRUCTURAL STEEL:

ANGLE SHAPES & PLATES- ASTM A36	Fy = 36000 PSI
WIDE FLANGE SHAPES ASTM A572 GRADE 50	Fy = 50000 PSI
WIDE FLANGE (MOMENT FRAME) SHAPES ASTM A992	Fy = 50000 PSI
HSS TUBE SHAPES - ASTM A500 GRADE B	Fy = 46000 PSI
CHANNEL SHAPES - ASTM A572 GRADE 50	Fy = 50000 PSI

FASTENERS:
BOLTS - ASTM A325N
ANCHOR BOLTS - ASTM F1554
HEADED SHEAR CONNECTOR STUDS - ASTM A108

1.1.5 EXECUTION: CONTRACTOR TO CROSS CHECK DIMENSIONS, ELEVATIONS, SECTIONS AND DETAILS BETWEEN ARCHITECTURAL, MECHANICAL AND STRUCTURAL PLANS. AMBROSE ENGINEERING IS TO BE NOTIFIED OF ANY VARIANCE THAT WILL AFFECT THE STRUCTURAL FRAMING BEFORE CONTRACTOR BEGINS WORK. ALL EQUIPMENT SUPPORTS AND ANCHORAGES TO BE CROSS CHECKED WITH MANUFACTURER'S DRAWINGS. CONTRACTORS SHALL VERIFY ALL PROFILES, HEIGHTS AND DIMENSIONS AT PROJECT SITE PRIOR TO FABRICATION OF ANY MATERIAL AND INFORM THE ENGINEER OF ANY DISCREPANCIES OR FRAMING INTERFERENCES.

1.1.6 SHOP DRAWINGS: SHALL BE SUBMITTED BY THE GENERAL CONTRACTOR TO THE ARCHITECT/ENGINEER FOR APPROVAL BEFORE FABRICATION MAY PROCEED. GENERAL CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS BEFORE SUBMITTAL TO ARCHITECT/ENGINEER. ALL SHOP DRAWINGS SHALL CONTAIN THE ISSUE DATE INDICATED ON THE CONSTRUCTION DOCUMENTS, ALONG WITH ANY ADDENDUMS OR REVISION DATES. SHOP DRAWINGS SHALL BE PROVIDED FOR THE FOLLOWING COMPONENTS: CONCRETE DESIGN MIXES, REINFORCING STEEL, STRUCTURAL STEEL, STEEL JOISTS AND GIRDERS, STEEL DECKING, AND METAL FABRICATIONS.

1.1.7 PROJECT CONDITIONS: ALL EXISTING BUILDING DIMENSIONS AND CONDITIONS MUST BE FIELD VERIFIED PRIOR TO FABRICATION. AMBROSE ENGINEERING SHALL NOT BE RESPONSIBLE FOR ANY EXISTING INFORMATION SUPPLIED BY THE OWNER/ARCHITECT NOR BE LIABLE FOR THOSE EXISTING CONDITIONS THAT VARY FROM THE PREVIOUSLY GIVEN INFORMATION.

2.1 EARTHWORK:

2.1.1 SOILS REPORT: REFER TO SOILS REPORT FOR SITE CONDITIONS, SUITABLE BEARING MATERIALS, ENGINEERED FILL, BACK FILL MATERIALS, COMPACTION REQUIREMENTS AND PROJECT SPECIFICATIONS FOR EARTHWORK NOT SPECIFIED HEREIN.

2.1.2 EXCAVATIONS: IF EXCAVATION SHOULD INDICATE A SAFE SOIL BEARING CAPACITY, LESS THAN THE GENERAL DESIGN DATA SOIL BEARING CAPACITY, AT THE FOOTING DEPTH INDICATED ON PLANS, THE ARCHITECT / ENGINEER SHALL BE NOTIFIED IMMEDIATELY AND FOUNDATION REVISED TO MEET THIS CONDITION.

2.1.3 INSPECTIONS: ALL FOOTING EXCAVATIONS SHALL BE INSPECTED BY A SOILS TESTING AGENCY PRIOR TO PLACING FOUNDATION CONCRETE OR ENGINEERED FILL. NOTIFY OWNERS REPRESENTATIVE WHEN ADDITIONAL EXCAVATION IS REQUIRED TO REACH SUITABLE BEARING MATERIAL.

2.1.4 SITE PREPARATION: ALL TOP SOIL AREAS MUST BE REMOVED FOR SLABS BEARING ON SOIL AND REPLACED WITH WELL COMPACTED GRANULAR FILL MATERIAL.

2.1.5 BACKFILLING: WHERE BASEMENT WALLS ARE INDICATED, NO BACKFILL SHALL BE PLACED AGAINST BUILDING WALLS UNTIL FIRST FLOOR CONSTRUCTION IS COMPLETE. PROPERLY BRACE WALLS PRIOR TO BACKFILLING. WHERE FROST WALLS ARE INDICATED, BACKFILL BOTH SIDES OF WALLS SIMULTANEOUSLY TO PREVENT OVERTURNING OR LATERAL MOVEMENT OF WALLS.

3.1 REINFORCED CONCRETE:

3.1.1 REFERENCES: PERFORM CONSTRUCTION WORK IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND AS MODIFIED HEREIN:

ACI 301 "SPECIFICATIONS OF STRUCTURAL CONCRETE FOR BUILDINGS"
ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS".
ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".

3.1.2 PLACING REINFORCEMENT: INSTALL REINFORCEMENT IN ACCORDANCE WITH CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS" AND THE FOLLOWING MINIMUM CLEARANCES:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH AND WEATHER	
NO. 6 BAR AND LARGER	2"
NO. 5 AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH AND WEATHER OR IN CONTACT WITH GROUND	
NO. 8 BAR AND SMALLER	1 1/2"

3.1.3 HOT WEATHER CONCRETING: FOLLOW ACI 305 "HOT WEATHER CONCRETING" WHEN MAXIMUM DAILY TEMPERATURE EXCEEDS 85°F, OR RAPID DRYING CONDITIONS EXIST; EVAPORATION RATE >.15LB/SF/HR PER FIGURE 2.1.5.

3.1.4 COLD WEATHER CONCRETING: FOLLOW ACI 306 "COLD WEATHER CONCRETING" WHEN FREEZING CONDITIONS OR MEAN DAILY TEMPERATURE FALLS BELOW 40°F.

3.1.5 MATERIALS: PROVIDE CONCRETE AND REINFORCING MATERIALS IN ACCORDANCE WITH THE GENERAL DESIGN CRITERIA STRENGTH OF MATERIALS LISTED.

3.1.6 ACCESSORIES: ALL CONCRETE ACCESSORIES SUCH AS CHAIRS, TIES, ETC., THAT COME IN CONTACT WITH FORM WORK ON EXPOSED CONCRETE SHALL BE GALVANIZED OR PLASTIC COATED.

3.1.7 TESTING: ALL CONCRETE SHALL BE TESTED BY APPROVED TESTING AGENCY, FOR EACH CLASS OF CONCRETE, IN STANDARD CYLINDERS, AT THE FREQUENCY INDICATED IN THE SPECIFICATIONS.

3.1.8 SPLICES: LAP CONTINUOUS REINFORCING, WALL BARS, AND DOWELS 30 DIAMETERS. ALL OTHER LAPPED SPLICES SHALL BE LAPPED 36 BAR DIAMETERS. IN GROUPS OF PARALLEL BARS, SPLICES SHALL BE STAGGERED.

3.1.9 TERMINATE NON-CONTINUOUS BARS WITH A STANDARD HOOK IN ACCORDANCE WITH ACI IF EMBEDMENT CANNOT BE OBTAINED.

3.1.10 WHERE REINFORCING IS CALLED FOR IN A CERTAIN PORTION OF THE BUILDING, IT SHALL BE DUPLICATED IN SIMILAR PORTIONS OF THE BUILDING, UNLESS OTHERWISE SHOWN.

3.1.11 SLABS: MAY BE POURED AS A CONTINUOUS SCREEDED POUR WITH SAW CUT CONTROL JOINTS AT 15' MAXIMUM ON CENTER IN BOTH DIRECTIONS AND UNDER PARTITIONS. SAW CUTS TO BE MADE WITHIN 8 HOURS OF POUR.

3.1.12 WALLS: MAXIMUM POUR LENGTH 100 FT BETWEEN FORMED CONSTRUCTION JOINT AND IS TO ALIGN WITH BUILDING CONTROL JOINTS. INTERMEDIATE CONTROL JOINTS TO ALIGN WITH BUILDING CONTROL JOINTS AND SHALL BE NO GREATER THAN 30 FEET ON CENTER.

3.1.13 CONCRETE CONTRACTOR TO PROVIDE AND COORDINATE WITH ALL OTHER TRADES FOR SIZE AND LOCATIONS OF ANY AND ALL OPENINGS, SLEEVES, ETC. OCCURRING IN WALLS, FOOTINGS, AND FLOORS.

3.1.14 PROVIDE BOND BREAKER MATERIAL WHERE SLABS ABUT WALLS, COLUMNS AND OTHER VERTICAL SURFACES.

4.1 MASONRY:

4.1.1 REFERENCES: ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE FOLLOWING STANDARDS AND AS MODIFIED HEREIN:

ACI 530-05/ASCE 5-05/TMS 402/05 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
ACI 530.1-05/ASCE 6-05/TMS 602/05 "SPECIFICATIONS FOR MASONRY STRUCTURES"

4.1.2 MASONRY MATERIALS: CONFORM TO THE LATEST EDITION OF THE FOLLOWING ASTM SPECIFICATIONS:

CLAY BRICK: ASTM C216 (FACE BRICK)
GRADE SW, TYPE FBS,

LOAD BEARING ASTM C90
CONCRETE BLOCK: MINIMUM COMPRESSIVE STRENGTH = 2800 PSI (THREE UNITS)

MORTAR: ASTM C270
TYPE M: MINIMUM COMPRESSIVE STRENGTH = 2500 PSI AT 28 DAYS
TYPE S: MINIMUM COMPRESSIVE STRENGTH = 1800 PSI AT 28 DAYS
TYPE N: MINIMUM COMPRESSIVE STRENGTH = 750 PSI AT 28 DAYS

GROUT: ASTM C476

MINIMUM COMPRESSIVE STRENGTH = 2000 PSI AT 28 DAYS
MASONRY JOINT
REINFORCEMENT: ASTM A82, GALVANIZED

REBAR POSITIONERS: ASTM A82, GALVANIZED

4.1.3 INSPECTION: MASONRY WORK SHALL BE INSPECTED BY AN APPROVED TESTING AGENCY IN ACCORDANCE WITH ACI 530.1, TABLE 4 LEVEL B, QUALITY ASSURANCE.

4.1.4 JOINT REINFORCEMENT: PROVIDE STANDARD LADDER TYPE REINFORCEMENT FABRICATED OF 9 GA. MINIMUM WIRE DIAMETER, AT EVERY SECOND BLOCK COURSE, 16" ON CENTER VERTICALLY. IN ALL RUNNING BOND WALLS. PROVIDE LADDER REINFORCEMENT AT EVERY BLOCK COURSE, 8" ON CENTER VERTICALLY IN ALL STACK BOND WALLS. INSTALL REINFORCEMENT IN THE FIRST AND SECOND BED JOINTS, EIGHT (8) INCHES o/c, IMMEDIATELY ABOVE AND BELOW OPENINGS. EXTEND THE REINFORCEMENT IN THE SECOND BED JOINTS, ABOVE AND BELOW. EXTEND REINFORCEMENT TWO (2) FEET BEYOND JAMBS, MINIMUM.

4.1.5 REBAR POSITIONERS: FABRICATED FROM 9 GAUGE WIRE. LOCATE AT TOP OF FIRST COURSE AND ONE COURSE BELOW TOP OF WALL WITH A MAXIMUM SPACING OF 4'-0" O/C.

4.1.6 BOND BEAMS SHALL BE REINFORCED WITH 2 #4 BARS CONTINUOUS, EXCEPT AT CONTROL JOINTS. LAP BOND BEAMS A MINIMUM OF 4'-0" AT VERTICAL STEPS IN BOND BEAM COURSES. LAP CONTINUOUS BARS 30 DIAMETERS AT ALL SPLICES.

4.1.7 VERTICAL WALL REINFORCEMENT SHALL BE LAPPED 48 DIAMETERS. GROUT ALL VERTICALLY REINFORCED MASONRY CORES SOLID.

4.1.8 MASONRY CONTROL JOINTS: CONSTRUCT EXTERIOR JOINTS AT A MAXIMUM HORIZONTAL SPACING BETWEEN JOINTS OF 24'-0" AND NOT MORE THE 12'-0" FROM CORNERS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. CONSTRUCT INTERIOR CONTROL JOINTS IN WALLS PLACED PERPENDICULAR TO BEAMS OR BEARING WALLS AND NOT MORE THAN 32'-0" ON CENTER OR 16'-0" FROM CORNERS. NO JOINTS SHALL BE LOCATED WITHIN 2'-0" OF STEEL BEAM BEARINGS.

4.1.9 PROVIDE FLEXIBLE MASONRY JOINTS AT ALL SIDES OF STEEL BEAMS AND/OR STEEL JOISTS THAT PENETRATE NON-BEARING MASONRY WALLS. MAINTAIN A MINIMUM 1-1/2" CLEAR DISTANCE BETWEEN THE STEEL AND MASONRY.

4.1.10 ALL MASONRY WALLS HAVING TWO OR MORE WYTHES OF BRICK AND/OR CONCRETE BLOCK SHALL HAVE ALL VERTICAL COLLAR JOINTS FILLED WITH MORTAR FOR THEIR FULL HEIGHT. PARGING IS NOT ACCEPTABLE. THIS REQUIREMENT DOES NOT APPLY BETWEEN WYTHES OF CAVITY WALLS.

4.1.11 MASONRY WALLS SHALL BE BRACED TO WITHSTAND A MINIMUM HORIZONTAL LOAD OF 20 PSF DURING THEIR ERECTION, AND UNTIL THEIR DESIGN SUPPORTS ARE IN PLACE. BRACING SYSTEMS SHALL BE DESIGNED BY A QUALIFIED STRUCTURAL ENGINEER.

4.1.12 IN NO CASE SHALL SHORES OR FORMS BE REMOVED, OR CONCENTRATED LOADS FROM FRAMING MEMBERS BE APPLIED, UNTIL THE MORTAR HAS CURED SUFFICIENTLY TO CARRY ITS OWN WEIGHT AND ALL OTHER ANTICIPATED LOADS.

4.1.13 ALL EMBEDDED STEEL BEAMS SHALL HAVE ADJUSTABLE MASONRY ANCHORS SPACED NOT GREATER THAN 16" VERTICALLY, AND 24" HORIZONTALLY, UNLESS OTHERWISE NOTED. ALL EMBEDDED STEEL COLUMNS SHOULD HAVE ADJUSTABLE MASONRY ANCHOR STRAPS AT 16" O/C VERTICALLY.

4.1.14 PROVIDE POCKETS IN MASONRY WALLS FOR STEEL BEAMS AND COLUMN BASE PLATES WHERE REQUIRED. BACK PATCH WITH CONCRETE.

4.1.15 WHERE NO MASONRY PIERS ARE INDICATED BELOW, STRUCTURAL MEMBERS RESTING ON MASONRY, PROVIDE A MINIMUM OF THREE COURSES OF CONCRETE BRICK OR APPROVED EQUIVALENT BEARING.

4.1.16 IN MASONRY BEARING WALLS, NO CHASES, RISERS, CONDUIT OR TOOTHING OF MASONRY SHALL OCCUR WITHIN 1'-6" OF CENTERLINE OF BEAM BEARING OR LOAD CONCENTRATION.

4.1.17 COLD WEATHER MASONRY CONSTRUCTION AND ITS QUALITY CONTROL REQUIRE ADDITIONAL ATTENTION TO CONSTRUCTION PRACTICES AND PROTECTION. ATTENTION SHOULD BE DIRECTED TO THE FOLLOWING DETAILS AS WELL AS THOSE NORMALLY ATTENDED.

1. CONSTRUCTION MATERIALS SHOULD BE RECEIVED, STORED, AND PROTECTED IN WAYS THAT PREVENT WATER FROM ENTERING THE MATERIALS.

2. IF CLIMATIC CONDITIONS WARRANT, TEMPERATURES OF CONSTRUCTION MATERIALS SHOULD BE MEASURED. FROZEN SAND AND WET MASONRY UNITS MUST BE THAWED. MASONRY UNITS BELOW 20°F MUST BE HEATED ABOVE 20°F WITHOUT OVERHEATING.

3. SUFFICIENT MORTAR INGREDIENTS SHOULD BE HEATED TO PRODUCE MORTAR TEMPERATURES BETWEEN 40°F AND 120°F. EVERY EFFORT SHOULD BE MADE TO PRODUCE CONSECUTIVE BATCHES OF MORTAR WITH THE SAME TEMPERATURES FALLING WITHIN THIS RANGE. THE MORTAR TEMPERATURE AFTER MIXING AND BEFORE USE SHOULD BE ABOVE 40°F, MAINTAINABLE EITHER BY AUXILIARY HEATERS UNDER THE MORTAR BOARD OR BY MORE FREQUENT MIXING OF MORTAR BATCHES. HEATED MORTAR ON MORTAR BOARDS SHOULD NOT BECOME EXCESSIVELY HOT (GREATER THAN 120°F).

4. DURING BELOW-NORMAL TEMPERATURES, MASONRY SHOULD BE PLACED ONLY ON A SOUND UNFROZEN FOUNDATIONS. MASONRY SHOULD NEVER BE PLACED ON A SNOW OR ICE-COVERED SURFACE, BECAUSE OF THE DANGER OF MOVEMENT WHEN THE BASE THAWS AND THE POSSIBILITY OF VERY LITTLE BOND BEING DEVELOPED BETWEEN THE MORTAR AND THE SUPPORTING SURFACE.

5. AT THE END OF THE DAY, THE TOP SURFACE OF ALL MASONRY SHOULD BE PROTECTED TO PREVENT MOISTURE, AS RAIN, SNOW OR SLEET, FROM ENTERING THE MASONRY. THIS PROTECTION MUST COVER THE TOP SURFACE AND SHOULD EXTEND A MINIMUM OF 2 FEET DOWN ALL SIDES OF THE MASONRY.

WORK DAY TEMPERATURE	CONSTRUCTION REQUIREMENT	PROTECTION REQUIREMENT
ABOVE 40°F	NORMAL MASONRY PROCEDURES.	COVER WALLS WITH PLASTIC OR CANVAS AT END OF WORK DAY TO PREVENT WATER ENTERING MASONRY.
40°F - 32°F	HEAT MIXING WATER TO PRODUCE MORTAR TEMPERATURES BETWEEN 40°F - 120°F.	COVER WALLS AND MATERIALS TO PREVENT WETTING AND FREEZING. COVERS SHOULD BE PLASTIC OR CANVAS.
32°F - 25°F	HEAT MIXING WATER AND SAND TO PRODUCE MORTAR TEMPERATURES BETWEEN 40°F - 120°F.	WITH WIND VELOCITIES OVER 15 MPH PROVIDE WIND-BREAKS DURING THE WORK DAY AND COVER WALLS AND MATERIALS AT THE END OF THE WORK DAY.
25°F - 20°F	MORTAR ON BOARDS SHOULD BE MAINTAINED ABOVE 40°F.	TO PREVENT WETTING AND FREEZING. MAINTAIN MASONRY ABOVE FREEZING FOR 16 HOURS USING AUXILIARY HEAT OR INSULATED BLANKETS.
20°F - 0°F AND BELOW	HEAT MIXING WATER AND SAND TO GET MORTAR TEMPERATURES BETWEEN 40°F - 120°F.	PROVIDE ENCLOSURES AND SUPPLY SUFFICIENT HEAT TO MAINTAIN MASONRY ENCLOSURE ABOVE 32°F FOR 24 HOURS.

5.1 STRUCTURAL STEEL:

5.1.1 REFERENCES: STRUCTURAL STEEL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING STANDARDS AND AS MODIFIED HEREIN:

AISC - "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
AWS - "STRUCTURAL WELDING CODE - STEEL".
SSPC - "STEEL STRUCTURES PAINTING MANUAL", VOLUME 1 AND 2.

5.1.2 PRODUCTS: COMPLY WITH ASTM REQUIREMENTS FOR STRENGTH OF MATERIALS INDICATED FOR THE GENERAL DESIGN CRITERIA.

5.1.3 CONNECTIONS: CONNECTIONS NOT DETAILED ON DRAWINGS SHALL BE DESIGNED BY THE FABRICATOR FOR THE FOLLOWING REQUIREMENTS:

1. BEAM CONNECTIONS SHALL BE AISC STANDARD FRAMED BEAM CONNECTIONS.

2. FIELD CONNECTIONS SHALL BE BOLTED WITH 3/4" DIAMETER HIGH STRENGTH ASTM A325 BOLTS, BEARING TYPE N WITH STANDARD ROUND HOLES.

3. WHERE SLOTTED CONNECTIONS ARE REQUIRED, ADJUST BOLT VALUES ACCORDINGLY.

4. WHERE REACTIONS ARE NOT INDICATED ON DRAWINGS DESIGN CONNECTION FOR 60% OF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE AISC TABLES OF UNIFORM LOAD CONSTANTS.

5. THE FOLLOWING CONDITIONS SHALL BE CHECKED WHEN DESIGNING BEAM CONNECTIONS: BOLT SHEAR, BOLT BEARING ON CONNECTING MATERIAL, BLOCK WEB SHEAR, SHEAR ON THE NET AREA OF THE CONNECTING ANGLES, PLATES OR TEES AND LOCAL BENDING STRESS.

6. STEEL CONTRACTOR TO PUNCH HOLES IN STEEL MEMBERS FOR ARCHITECTURAL CONNECTIONS. REFER TO ARCHITECTURAL PLANS.

5.1.4 PAINT: FOR ALL STRUCTURAL STEEL - FABRICATOR'S STANDARD RUST INHIBITING PRIMER PER SSPC-SP2. DO NOT PAINT STRUCTURAL SURFACES TO BE IN CONTACT WITH POURED CONCRETE, SURFACES TO BE WELDED, SURFACES TO RECEIVE WELDED STUDS OR SURFACES TO RECEIVE SPRAY ON FIREPROOFING.

5.1.5 TEMPORARY BRACING: THE BUILDING FRAME, DURING CONSTRUCTION, IS NOT A SELF-SUPPORTING STEEL FRAME AS DEFINED IN THE AISC CODE OF STANDARD PRACTICE, SECTION 7.9.3 (NINTH EDITION). CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORTS FOR THE FRAME UNTIL ALL THE DESIGN SUPPORTS AND ITS COMPONENTS (FLOORS AND/OR ROOF) ARE SECURELY IN PLACE.

5.1.6 WELD IDENTIFICATION: EACH STRUCTURALLY SIGNIFICANT MEMBER SHALL HAVE ITS WELDING IDENTIFIED BY A DISTINGUISHING MARK STAMPED ON THE MEMBER BY THE CERTIFIED WELDERS INVOLVED.

5.2 STEEL JOIST:

5.2.1 REFERENCES: PERFORM CONSTRUCTION WORK IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND AS MODIFIED HEREIN:

SJI "STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOIST K-SERIES"
SJI "STANDARD SPECIFICATIONS FOR LONGSPAN STEEL JOIST LH AND DEEP LONGSPAN STEEL JOIST DLH-SERIES".
SJI "STANDARD SPECIFICATION FOR JOIST GIRDERS".
SJI "RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOIST AND JOIST GIRDERS".

5.2.2 MATERIALS: FABRICATE STEEL JOIST IN ACCORDANCE WITH SJI SPECIFICATION FOR TYPE OF JOISTS INDICATED ON DRAWINGS. PROVIDE JOIST TOP AND BOTTOM CHORD EXTENSIONS, SPLICES AND ACCESSORIES. REFER TO DRAWINGS FOR ADDITIONAL ITEMS SUPPLIED BY JOIST MANUFACTURER.

5.2.3 ROOF JOISTS AS DESIGNATED ARE DESIGNED FOR DEAD LOAD, LIVE LOAD, DRIFTING SNOW AND MECHANICAL EQUIPMENT WEIGHTS INDICATED ON DRAWINGS. STEEL JOIST CONTRACTOR SHALL PROVIDE ADDITIONAL WEB MEMBERS AND/OR SPECIAL JOISTS AS REQUIRED TO SUPPORT CONCENTRATED EQUIPMENT LOADS.

5.2.4 BRIDGING SIZE & SPACING TO COMPLY WITH SJI SPECIFICATIONS. WHERE UPLIFT FORCES EXCEED THE ROOF TYPE DEAD LOAD, ADDITIONAL BRIDGING SHALL BE PROVIDED TO SUIT UPLIFT REQUIREMENTS.

5.2.5 PAINT: ONE COAT MANUFACTURE'S STANDARD GRAY PRIMER.

5.2.6 INSTALLATION: FIELD WELD JOISTS TO WALL ANGLES, BEARING PLATES AND SUPPORTING STEEL BEAMS WITH AT LEAST TWO 3/16" X 1" LONG WELDS. BOLT TO STEEL FRAMING WHERE INDICATED ON DRAWINGS. COMPLY WITH OSHA REQUIREMENTS FOR INSTALLATION OF JOIST AND BRIDGING.

5.2.7 NO HOLES TO BE DRILLED THROUGH CHORD MEMBERS OR OTHERWISE THAT WOULD REDUCE MEMBER SECTIONS.

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PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			GENERAL NOTES	DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF / DWG. S002

5.3 METAL DECK:

5.3.1 REFERENCES: STEEL DECK CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING STANDARDS AND AS MODIFIED HEREIN:

SDI "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, ROOF DECKS, CELLULAR METAL FLOOR DECK AND ELECTRICAL DISTRIBUTION".
SDI "SPECIFICATION AND COMMENTARY FOR STEEL ROOF DECK".

5.3.2 DECK TYPES: PROVIDE DEPTH, GAGE AND TYPE INDICATED ON DRAWINGS.

5.3.3 COATING: ALL ROOF DECK SHALL BE PAINTED, EXCEPT DECK EXPOSED TO WEATHER WHICH SHALL BE GALVANIZED. ALL FLOOR DECK SHALL BE GALVANIZED.

5.3.4 ROOF DECK INSTALLATION: PLACE DECK UNITS AND SECURE TO ADJACENT FRAMING BY MECHANICAL FASTENERS. MECHANICAL FASTENERS TO BE ONE OF THE FOLLOWING: HILTI X-EDN19 NAIL OR X-EDNK22 NAIL, OR PNEUTEK, INC. FASTENER SYSTEM. REFER TO DRAWINGS FOR FASTENER SPACING REQUIREMENTS.

5.3.5 FLOOR DECK INSTALLATION: PLACE DECK UNITS AND SECURE TO ADJACENT FRAMING BY WELDING IN ACCORDANCE WITH SDI SPECIFICATIONS FOR EACH DECK THICKNESS, GAGE AND SPAN. PROVIDE ALL CELL CLOSURE AND GIRDER FILLER MATERIAL AS REQUIRED. DECK SUPPLIER SHALL PROVIDE SUPPORT FOR ALL GIRDER FILLER PIECES AS REQUIRED. WHERE NOT INDICATION ON PLANS, PROVIDE POUR STOPS PER SDI POUR STOP SELECTION TABLES.

5.3.6 NO METAL ROOF DECK OPENINGS SHALL BE CUT UNLESS AUTHORIZED AND/OR DIRECTED BY THE ARCHITECT. WHEN OPENINGS ARE REQUIRED, THE FOLLOWING RECOMMENDATIONS APPLY:

6" OPENING OR LESS	(ONE RIB REMOVED) -	NO REINFORCING REQUIRED
6" TO 8" OPENING	(ONE RIB REMOVED) -	18 GA. REINFORCING PLATE, SCREWED TO ADJACENT RIBS.
8" TO 12" OPENING	(TWO RIBS REMOVED) -	16 GA. REINFORCING PLATE, SCREWED TO ADJACENT RIBS.
OPENINGS OVER 12"	STEEL ANGLE FRAME,	AS SHOWN ON THE STEEL DETAIL DRAWINGS ARE REQUIRED.

PROVIDE 1-1/2" DEEP REINFORCING CHANNELS IN EACH RIB AT EACH SIDE OF OPENING (FLUSH WITH TOP OF DECK), SPANNING BETWEEN ROOF DECK SUPPORTS, SHOULD THE ROOF OPENINGS BE LOCATED NEAR THE END OF THE DECK.

6.4 ANCHORAGE:

6.4.1 ALL FIELD INSTALLED EXPANSION AND EPOXY ANCHORS SHALL BE APPROVED FOR THE TYPE AND INSTALLATION, FOR ITS APPLICATION, AND MATERIALS.

6.4.2 MINIMUM ANCHOR EMBEDMENT, EDGE DISTANCE AND MINIMUM SPACING ARE AS FOLLOWS U.N.O.:

EXPANSION ANCHORS:

BOLT DIAMETER (d)	1/4"	3/8"	1/2"	5/8"	3/4"	1"
EMBEDMENT	2"	2.5"	3.5"	4"	4.75"	6"
MIN. EDGE DISTANCE	3.25"	3.75"	5.5"	6"	7"	9"
MIN. SPACING	4.5"	5"	7"	8"	10"	12"

EPOXY ANCHORS:

BOLT DIAMETER (d)	3/8"	1/2"	5/8"	3/4"	1"
EMBEDMENT	3.5"	4.25"	5"	6.62"	8.25"
MIN. EDGE DISTANCE	6"	6.5"	7.5"	10"	12.5"
MIN. SPACING	5.25"	6.5"	7.5"	10"	12.5"

7.1 SPECIAL INSPECTIONS:

7.1.1 GENERAL CONTRACTOR SHALL RETAIN A TESTING COMPANY FOR THE FOLLOWING:

1. CONCRETE REINFORCEMENT: FOOTINGS, WALLS, PIERS AND SLABS PER SPECIFICATIONS.
2. CONCRETE: PROVIDE TEST CYLINDERS AND STRENGTH TESTING PER SPECIFICATIONS.
3. MASONRY: COMPLY WITH THE SPECIFICATION FOR MASONRY STRUCTURES - TABLE 4 - LEVEL B QUALITY ASSURANCE.
4. STRUCTURAL STEEL: LIMITED WELDED AND BOLTED CONNECTIONS PER SPECIFICATIONS.
5. JOIST AND JOIST GIRDER CONNECTIONS: WELDED AND BOLTED CONNECTIONS PER SPECIFICATIONS.
6. METAL DECK FASTENING: LIMITED INSPECTION PER SPECIFICATIONS.
7. FOOTING EXCAVATIONS: AS RECOMMENDED IN GEOTECHNICAL REPORT.

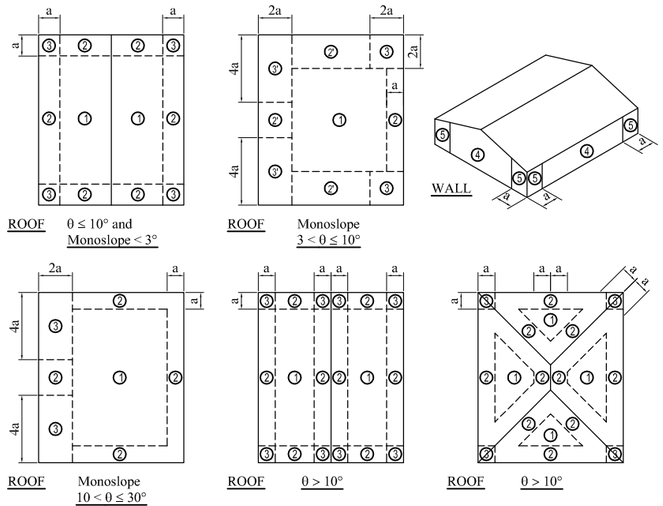
V. Wind Loads - Components & Cladding: Buildings h≤60' & Alternate design 60'<h<90'

K_z = Kh (case I) = 0.96 GCpi = +/-0.18 NOTE: If tributary area is greater than
Base pressure (qh) = **16.9 psf** a = 5.2 ft 700sf, MWFRS pressure may be used.
Minimum parapet height at building perimeter = 0.0 ft

Roof Angle = 11.8 deg
Type of roof = Monoslope (Monoslope)

Roof	GCp +/- GCpi			Surface Pressure (psf)			User input	
Area	10 sf	50 sf	100 sf	10 sf	50 sf	100 sf	20 sf	70 sf
Negative Zone 1	-1.48	-1.34	-1.28	-25.0 psf	-22.6 psf	-21.6 psf	-23.9 psf	-22.1 psf
Negative Zone 2	-1.78	-1.50	-1.38	-30.0 psf	-25.3 psf	-23.3 psf	-28.0 psf	-24.3 psf
Negative Zone 3	-3.08	-2.45	-2.18	-51.9 psf	-41.3 psf	-36.8 psf	-47.4 psf	-39.1 psf
Positive All Zones	0.58	0.51	0.48	10.0 psf	10.0 psf	10.0 psf	10.0 psf	10.0 psf
	0.00	0.00	0.00	-10.0 psf	-10.0 psf	-10.0 psf	-10.0 psf	-10.0 psf
	0.00	0.00	0.00	-10.0 psf	-10.0 psf	-10.0 psf	-10.0 psf	-10.0 psf

Walls	GCp +/- GCpi			Surface Pressure (psf)			User input	
Area	10 sf	100 sf	500 sf	10 sf	100 sf	500 sf	50 sf	200 sf
Negative Zone 4	-1.28	-1.10	-0.98	-21.6 psf	-18.6 psf	-16.5 psf	-19.5 psf	-17.7 psf
Negative Zone 5	-1.58	-1.23	-0.98	-26.6 psf	-20.7 psf	-16.5 psf	-22.5 psf	-18.9 psf
Positive Zone 4 & 5	1.18	1.00	0.88	19.9 psf	16.9 psf	14.8 psf	17.8 psf	16.0 psf



PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			GENERAL NOTES	DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF / DWG. S003

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ABBREVIATIONS

AB Anchor Bolt
ADDM Addendum
ADDL Additional
ADJ Adjacent
ADJ Adjustable
AFF Above Finished Floor
AGGR Aggregate
ALUM Aluminum
ALT Alternate, Alternating
APPROX Approximate
ANCH Anchor
ARCH Architectural

BB Bond Beam
BC Bottom Chord
BCX Bott Chord Extension
BD Board
BL Brick Ledge
BLDG Building
BLK Block
BLKG Blocking
BM Beam
BO Bottom of
BOF Bottom of Footing
BOL Bottom of Lintel
BOS Bottom of Steel
BOT Bottom
BOW Bottom of Wall
BP Bearing Plate
BRDG Bridging, Bridge
BRG Bearing
BRK Brick
BSMT Basement
BT Bent
BTWN Between

c Camber
C Standard Channel
CANT Cantilever (ed)
CB Castellated Beam
CB Catch Basin
CFMU Conc Form Masonry Unit
CHD Chord
CIP Cast-in-place
CJ Composite Joist
CJ Control Joint
CL Centerline
CLG Ceiling
CLR Clear (ance)
CMU Conc Masonry Unit
COL Column
CONC Concrete
CONN Connection
CONSTR Construction
CONT Continuous
CONTR Contractor
COORD Coordinate
COV Cover
CP Center Point
CRS Course
CTR Center
CU FT Cubic Feet
CU YD Cubic Yards

D Depth
DBL Double
DEPR Depression
DF Douglas Fir
DIA Diameter
DIAG Diagonal
DIM Dimension
DK Deck
DL Dead Load
DLH Deep Longspan Joist
DN Down
DO Ditto
DR Door
DTL Detail
DWG Drawing
DWL Dowel

E Elasticity Modulus
EA Each
EB Expansion Bolt
EE Extended End
EF Each Face
EIFS Ext Insul Fin System
EJ Expansion Joint
EL Elevation
ELEC Electrical
ELEV Elevator
EMBED Embedment
(E) Epoxy
EPS Expanded Polystyrene
EQ Equal
EQUIP Equipment
ES Each Side
EW Each Way
EX Existing
EXIST Existing
EXP Expansion
EXT Exterior

Fb Flexural Bending Stress
Fc Compressive Stress
F'c Comp Stress @ 28 days
Ft Tensile Stress
Fv Shear Stress
Fy Yield Stress
FD Floor Drain
FDN Foundation
FFE Fin Floor Elevation
FH Full Height
FIN Finish (ed)
FLR Floor
FLG Flange
FOC Face of Concrete
FOM Face of Masonry
FOS Face of Studs
FOW Face of Wall
FR Frame (ed)
FRMG Framing
FT Feet, Foot
FTG Footing
FUT Future
FV Field Verify
FW Fire Wall

G Girder
GA Gage
GALV Galvanized
GC General Contractor
GEN General
GIR Girder
GL Glu Lam
GLULAM Glued Laminated Wood
GR BM Grade Beam
GYP Gypsum

H Horizontal, Height
HDR Header
HGR Hanger
HI High
HM Hollow Metal
HORIZ Horizontal
HR Hour
HS Headed Stud
HSS Hollow Struct Section
HT Height
HVAC Heat/Vent/Air Cond

ICF Insulating Conc Form
ID Inside Diameter
IE Invert Elevation
IF Inside Face
IN Inches
INCL Include (ed) (ing)
INSUL Insulate (ed) (ion)
INT Interior

JB Joist Bearing
JG Joist Girder
JS Joist Substitute
JST Joist
JT Joint

K Kips
K K Series Steel Joist
KCS K Joist Constant Shear
KLF Kips per Lineal Foot
KO Knock Out
KSI Kips per Square Inch

L Angle
LAM Laminated
LG Long, Length
LH Longspan Steel Joist
LL Live Load
LLH Long Leg Horizontal
LLV Long Leg Vertical
LO Low
LONG Longitudinal
LSL Lam Strand Lumber
LT Light
LVL Lam Veneer Lumber

M Misc Beam
MAS Masonry
MAX Maximum
MBR Member
MC Misc Channel
MECH Mechanical
MED Medium
MFR Manufacturer
MH Manhole
MIN Minimum
MISC Miscellaneous
ML Masonry Lintel
MO Masonry Opening
MTL Metal

N Girder Joist Spaces
NIC Not in Contract
NOM Nominal
NTS Not to Scale

OA Overall
OAD Overall Dimension
OC On Center
OD Outside Diameter
OF Outside Face
OH Opposite Hand
OH Overhead
OPNG Opening
OPP Opposite
OSB Oriented Strand Board

PAF Powder Actuated Fastener
PC Piece
PC Precast
PCI Pounds per Cubic Inch
PERIM Perimeter
PL Plate
PLBG Plumbing
PLF Pounds per Lineal Foot
PLYWD Plywood
PNL Panel
PR Pair
PSF Pounds per Sq Foot
PSI Pounds per Sq Inch
PSL Parallel Strand Lumber
PT Pressure Treated

R Riser, Radius
RAD Radius
RD Roof Drain
REINF Reinforcing
REQ Required, Requirement(s)
REV Revision
RO Rough Opening
RTU Roof Top Unit
RW Retaining Wall

S Standard Beam
SCHED Schedule
SD Side
SDS Self Drilling Screw
SECT Section
SF Square Feet
SHT Sheet
SHTHG Sheathing
SIM Similar
SL Slab
SL Superimposed Load
SLH Super Longspan Joist
SOG Slab on Grade
SP Spaces
SP Special (for joists)
SPCL Special
SPEC Specifications
SPF Spruce, Pine, Fir
SQ Square
SS Stainless Steel
STAB Stabilizer
STD Standard
STIF Stiffener
STL Steel
STRUCT Structural
SUB Substitute
SUSP Suspended

T Tread
T&B Top and Bottom
T&G Tongue and Groove
TB Truss Bearing
TC Top Chord
TCX Top Chord Extension
TEMP Temperature
THK Thickened, Thick
TL Total Load
TO Top of
TOC Top of Concrete
TOF Top of Footing
TOM Top of Masonry
TOP Top of Panel
TOP Top of Pier
TOPP Topping
TOS Top of Steel
TOSL Top of Slab
TOW Top of Wall
TRANS Transverse
TYP Typical

UL Underwriters Lab
UNEXC Unexcavated
UNO Unless Noted Otherwise
UR Urinal

V Vertical
VERT Vertical
VLD Vertical Leg Down
VLU Vertical Leg Up

W Width, Wide
W Wide Flange Beam
w/ with
w/o without
WD Wood
WHS Welded Headed Stud
WP Working Point
WT Wide Flange Tee
WWM Welded Wire Mesh

Symbols
Ø Diameter
d Penny
Rebar Number
Pounds
± Plus or Minus

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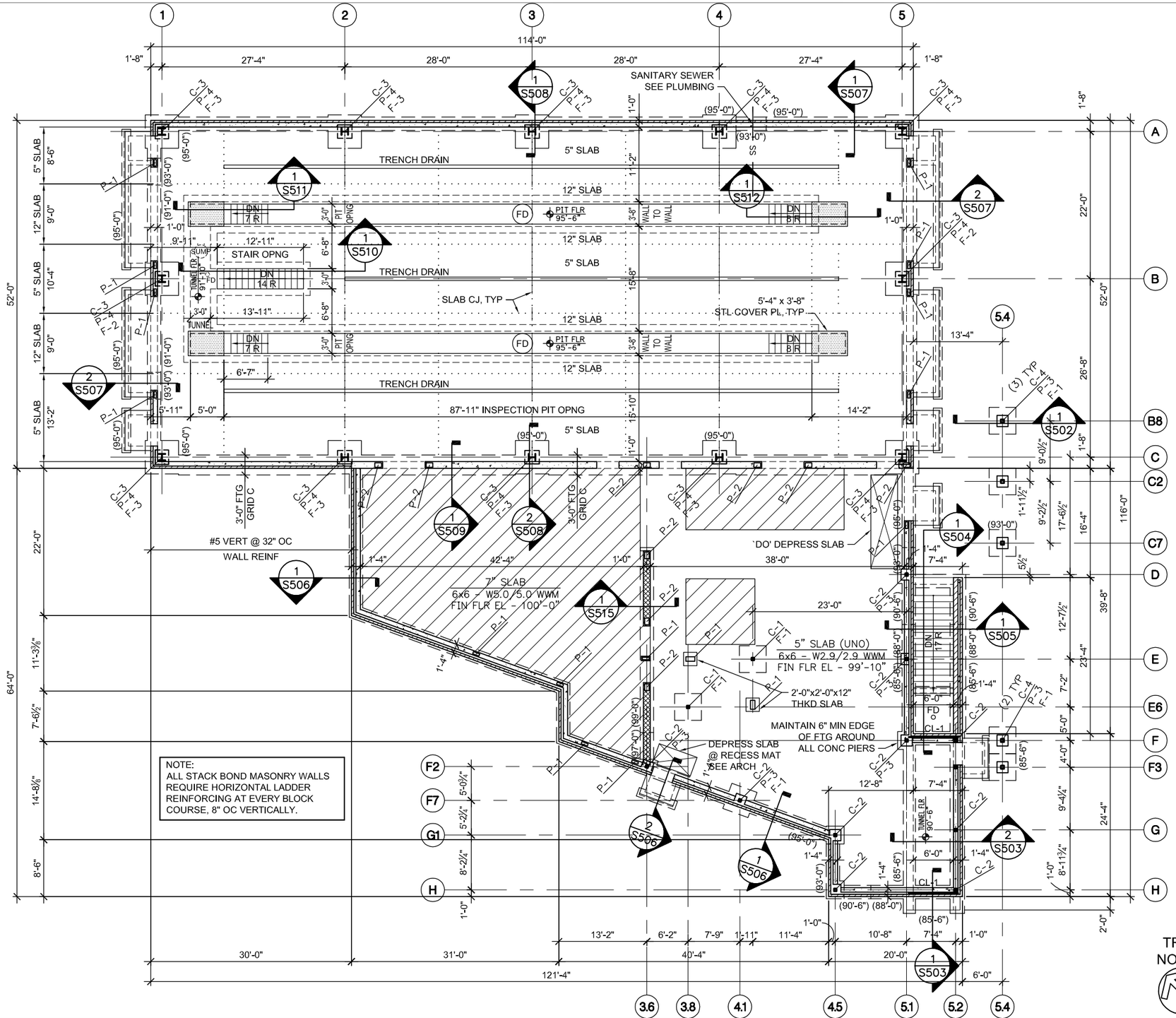
PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			ABBREVIATIONS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S004



COLUMN SCHEDULE			
MARK	SIZE	BASE PLATE	ANCH BOLTS
C-1	HSS4x4x1/4	PL10x3/4x0'-10"	(4) 3/4"
C-2	HSS5x5x5/16	PL9x3/4x0'-11"	(4) 3/4"
C-3	W12x87	PL14x1-1/2x1'-9"	(4) 1"
C-4	HSS6x6x1/4	PL12x3/4x1'-0"	(4) 3/4"

- PROVIDE İ" SETTING PLATE SAME SIZE AS BASE PLATE.
- ANCHOR BOLT EMBEDMENT: 12 x (BOLT DIAMETER)
- PROVIDE PLATE WASHER 3"x3/8"x0'-3" w/ NUT TOP & BOT, TACK WELD NUTS TO BOLT.

PIER SCHEDULE			
MARK	SIZE	VERT REINF	TIES
P-1	8"x16" MAS	(4) #5	#3 @ 16" OC
P-2	12"x16" MAS	(4) #5	#3 @ 16" OC
P-3	20"x20" CONC	(6) #6	(2) #3 @ 12" OC
P-4	24"x26" CONC	(8) #6	(2) #3 @ 12" OC

- PROVIDE DOWELS INTO FOOTING SAME SIZE AND QUANTITY AS PIER VERTICALS

FOOTING SCHEDULE		
MARK	SIZE	REINFORCING EACH WAY
F-1	4'-0"x4'-0"x12"	(4) #5
F-2	5'-0"x5'-0"x13"	(5) #5
F-3	5'-0"x5'-0"x16"	(6) #5

- SOIL CAPACITY = 3000 PSF (REPORT)

CONCRETE FOUNDATION NOTES:

1. FINISHED FLOOR - EL 100'-0" (unless noted otherwise)
2. TOP OF FOOTINGS (unless noted otherwise)
   INTERIOR - EL 99'-0"
   EXTERIOR - EL 95'-0"
3. (xx'-x") INDICATES TOP OF FOOTING ELEVATIONS.
4. [xx'-x"] INDICATES TOP OF PIER EL, 99'-4" TYP.
5. WALL FOOTINGS (unless noted otherwise)
   INTERIOR - 2'-0" x 10" w/ (3) #5 CONT
   EXTERIOR - 2'-0" x 10" NO REINF
6. PROVIDE (2) #4 TOP BARS IN WALL FOOTINGS AT ALL OPENINGS 6'-0" OR GREATER.
7. CONCRETE FOUNDATION WALL REINFORCING
   (2) #5 CONT TOP AND BOTTOM (unless noted otherwise)
8. STOOP SLABS (UP TO 5'-0" SPAN)
   5" SLAB w/ #3 @ 12" OC EACH WAY.
9. FOR LOCATION OF NON-BEARING WALLS SEE ARCH PLANS
10. EXTERIOR MASONRY WALL REINF
    8" CMU: #5 @ 32" OC
    12" CMU: #5 @ 48" OC

TRUE NORTH

PLAN NORTH

1 / S101 **FOUNDATION**
SCALE: 1/16" = 1'-0"

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION PLAN	DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0 16	SHEET NO: OF / DWG. S101

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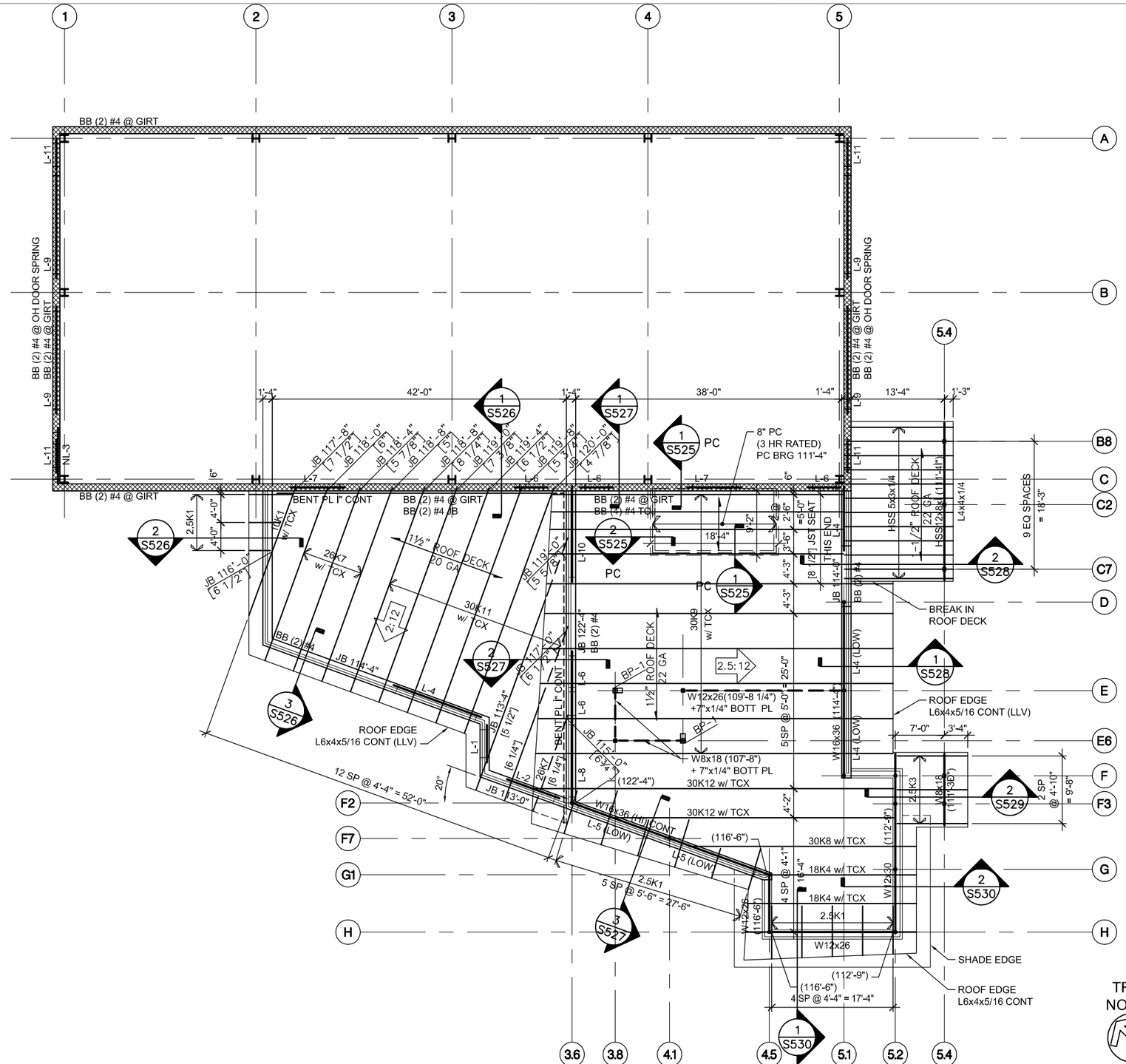
1
2
3
4
5
A
B
B8
C
C2
C7
D
E
E6
F
F2
F3
F7
G
G1
H
3.6
3.8
4.1
4.5
5.1
5.2
5.4
BB (2) #4 @ GIRT
BB (2) #4 @ OH DOOR SPRING
L-11
L-9
NL-3
L-7
L-6
L-10
L-4
L-1
L-2
L-8
L-5 (LOW)
1'-4"
42'-0"
38'-0"
13'-4"
1'-3"
BENT PL I" CONT
BB (2) #4 @ GIRT
BB (2) #4 TOP
BB (2) #4 BOT
8" PC
(3 HR RATED)
PC BRG 111'-4"
PC
1½" ROOF DECK
20 GA
2.5K1
10K1 w/ TCX
26K7 w/ TCX
30K11 w/ TCX
30K9 w/ TCX
30K12 w/ TCX
30K8 w/ TCX
18K4 w/ TCX
2.5K3
2.5K7
2:12
2.5:12
4'-0"
2'-6"
5'-0"
4'-3"
4'-2"
18'-4"
9'-2"
JB 117'-8" [7 1/2"]
JB 116'-0" [6"]
JB 116'-4" [5 7/8"]
JB 116'-8" [5"]
JB 116'-8" [8 1/4"]
JB 119'-0" [7 3/8"]
JB 119'-4" [6 1/2"]
JB 119'-8" [5 3/4"]
JB 120'-0" [4 7/8"]
JB 116'-0" [6 1/2"]
JB 119'-0" [5 5/8"]
JB 122'-4" BB (2) #4
JB 117'-0" [6 1/2"]
JB 113'-4" [5 1/2"]
JB 114'-4"
JB 113'-0"
JB 115'-0" [6 1/4"]
JB 114'-0"
BB (2) #4
HSS 5x8x1/4
L-1 1/2" ROOF DECK 22 GA
HSS12.8x (11'-4")
L4x4x1/4
9 EQ SPACES = 18'-3"
W8x18 (11'-3")
2 SP @ 4'-10" = 9'-8"
W12x26(109'-8 1/4") +7"x1/4" BOTT PL
W8x18 (107'-8") + 7"x1/4" BOTT PL
W16x36 (111'-4")
W16x40 (116'-6")
W12x30
W12x26
(122'-4")
(116'-6")
(112'-9")
(111'-3")
12 SP @ 4'-4" = 52'-0"
5 SP @ 5'-6" = 27'-6"
4 SP @ 4'-4" = 17'-4"
20"
BP-1
BREAK IN ROOF DECK
ROOF EDGE L6x4x5/16 CONT (LLV)
ROOF EDGE L6x4x5/16 CONT
SHADE EDGE
7'-0"
3'-4"
1'-4"
1'-0"
1'-7"
1'-8"
1'-10"
1'-11"
2'-0"
2'-1"
2'-2"
2'-3"
2'-4"
2'-5"
2'-7"
2'-8"
2'-9"
2'-10"
2'-11"
3'-0"
3'-1"
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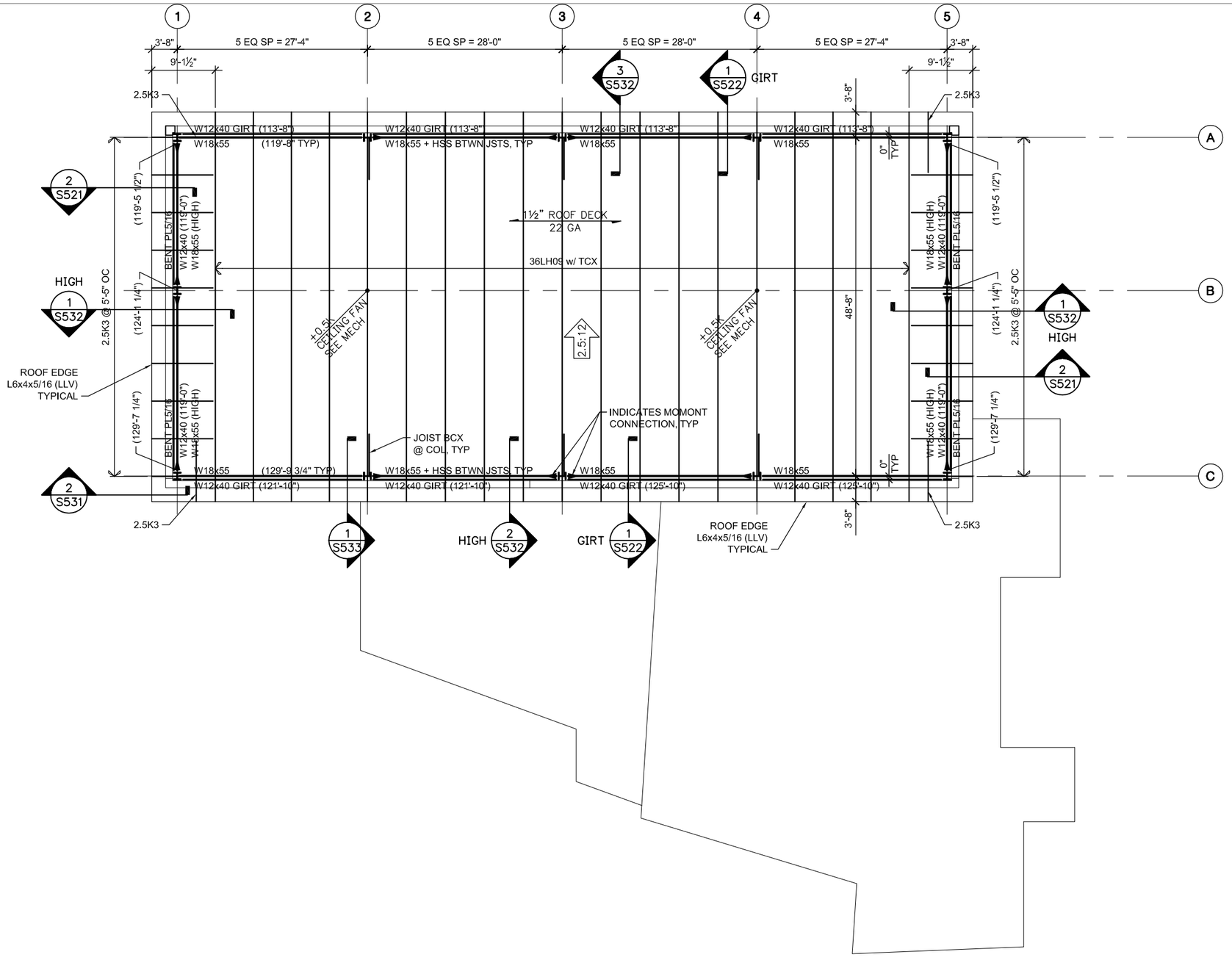
5'-5"
5'-6"



HIGH ROOF FRAMING NOTES:

1. 1-1/2" ROOF DECK: 22 GA - TYPE B, MECH FASTENED (unless noted otherwise) SEE 2/S522 FOR FASTENING PATTERN
2. DECK LAYOUT MUST BE 3-SPAN MINIMUM
3. (xxx'-x") INDICATES TOP OF STEEL ELEVATIONS
4. JB xxx'-x" INDICATES JOIST BEARING ELEVATIONS
5. [x"] INDICATES JOIST SEAT HEIGHT
   8" SEATS FOR LH-SERIES JOISTS, TYP.
   7-1/4" SEATS @ COLUMNS
   (unless noted otherwise)
6. JOISTS AS DESIGNATED ARE DESIGNED FOR DRIFT SNOW
7. PROVIDE BRIDGING PER SJI AND OSHA REQUIREMENTS AT ALL JOISTS
8. PROVIDE DIAGONAL BRIDGING AT FIRST TWO JOIST SPACES EA. END
9. ROOF OPENINGS - VERIFY ALL SIZES AND LOCATIONS WITH MECHANICAL DRAWINGS
10. PROVIDE L4x4x1/4 FRAME AT ALL ROOF OPENINGS BETWEEN JOISTS SPACED GREATER THAN 5'-6" OC SEE 1/S523.

NON-BEARING WALL LINTEL SCHEDULE

MARK	TYPE	SPAN	WALL WIDTH	SIZE	PL / REINF
NL-1	C	UP TO 2'-0"	6" 8" 12"	6"x8" 8"x8" 12"x8"	— — —
NL-2	C	2'-1" TO 4'-0"	6" 8" 12"	6"x8" 8"x8/12" 12"x8/12"	(2) #4 (2) #4 (2) #4
NL-3	D	4'-1" TO 8'-0"	6" 8" 12"	6"x16" 8"x16/20" 12"x16/20"	(2) #4 T&B (2) #4 T&B (2) #4 T&B

- PROVIDE LINTELS AS NOTED ABOVE AT ALL NON-BEARING MASONRY WALL OPENINGS, INCLUDES DUCT OPENINGS.

TRUE NORTH

PLAN NORTH

1 S103 HIGH ROOF FRAMING
SCALE: 1/16" = 1'-0"

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			HIGH ROOF FRAMING PLAN	DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0 16	SHEET NO: OF / DWG. S100

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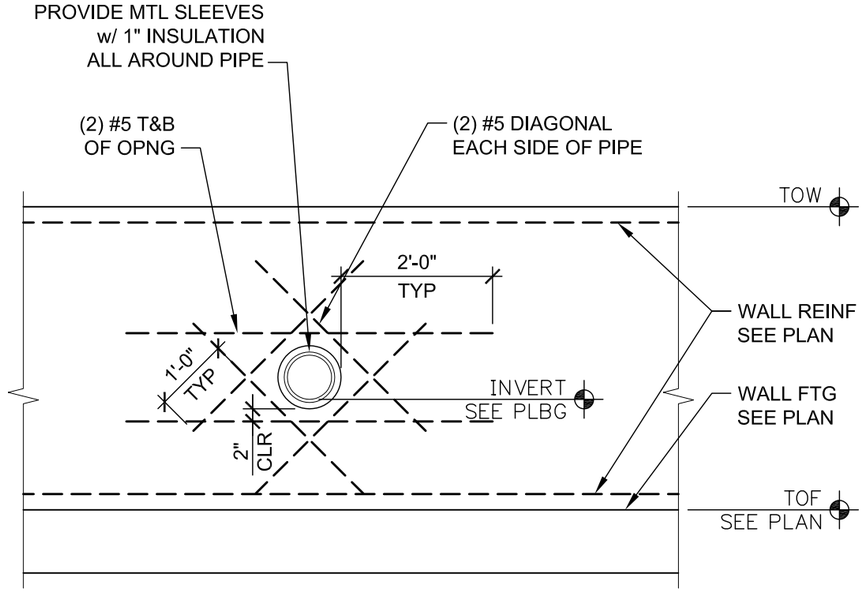
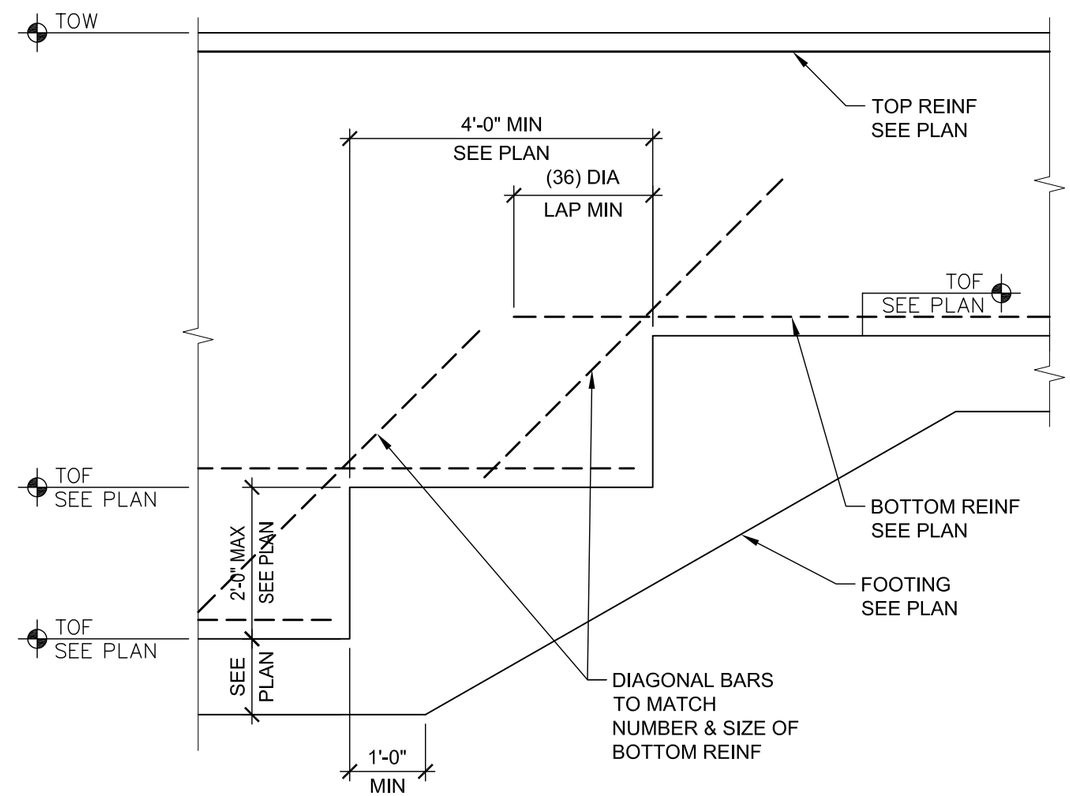


CONC FDN WALL REINF @ PIPE PENETRATIONS

SCALE: 1/2" = 1'-0"

2 S501



TYP CONC FDN WALL FOOTING STEP ELEV

SCALE: 1/2" = 1'-0"

1 S501

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S501

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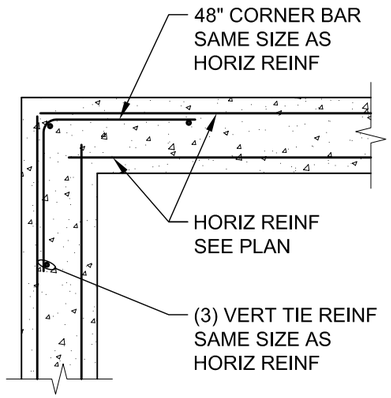
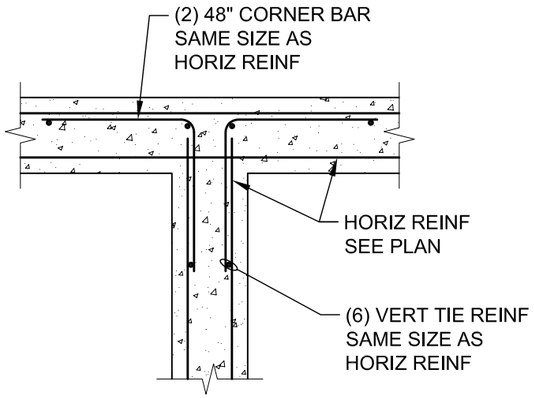


PLAN - TYP WALL
CORNER REINF

NO SCALE

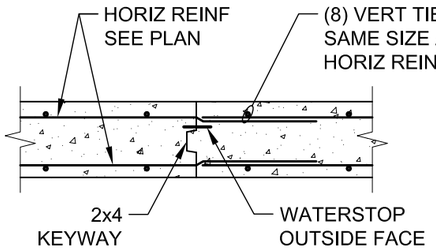
C



PLAN - TYP WALL
INTERSECTION REINF

NO SCALE

B



PLAN - VERTICAL
WALL CONSTR JOINT

NO SCALE

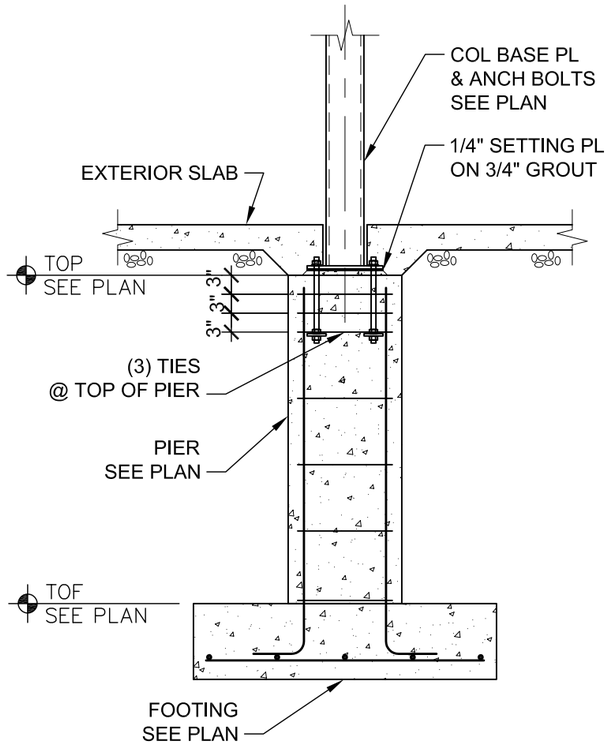
A

TYPICAL CONCRETE FDN WALL REINFORCING

2

SCALE: 1/2" = 1'-0"

S502



CANOPY COLUMN/PIER/FOOTING

1

SCALE: 1/2" = 1'-0"

S502

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S502

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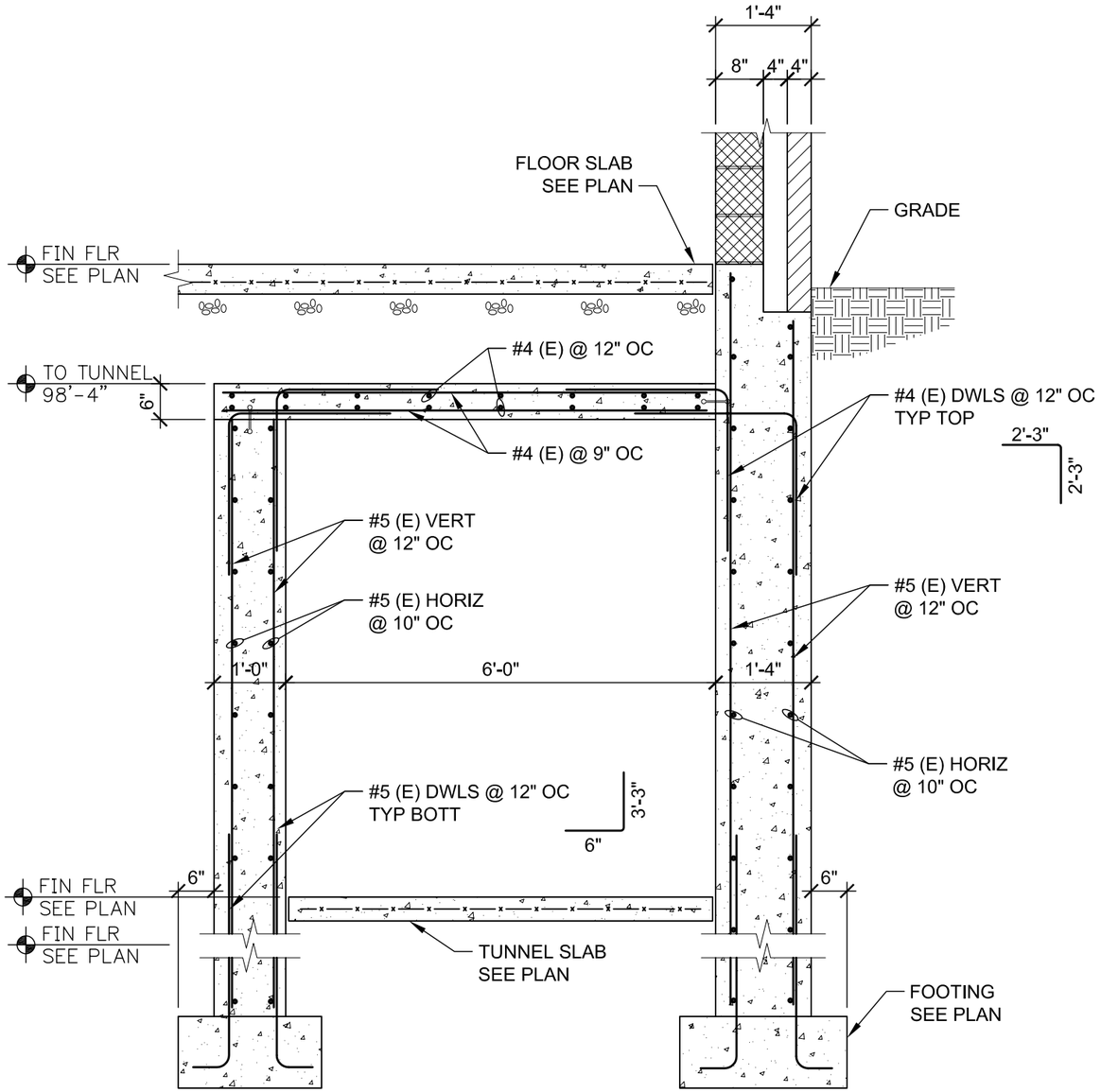
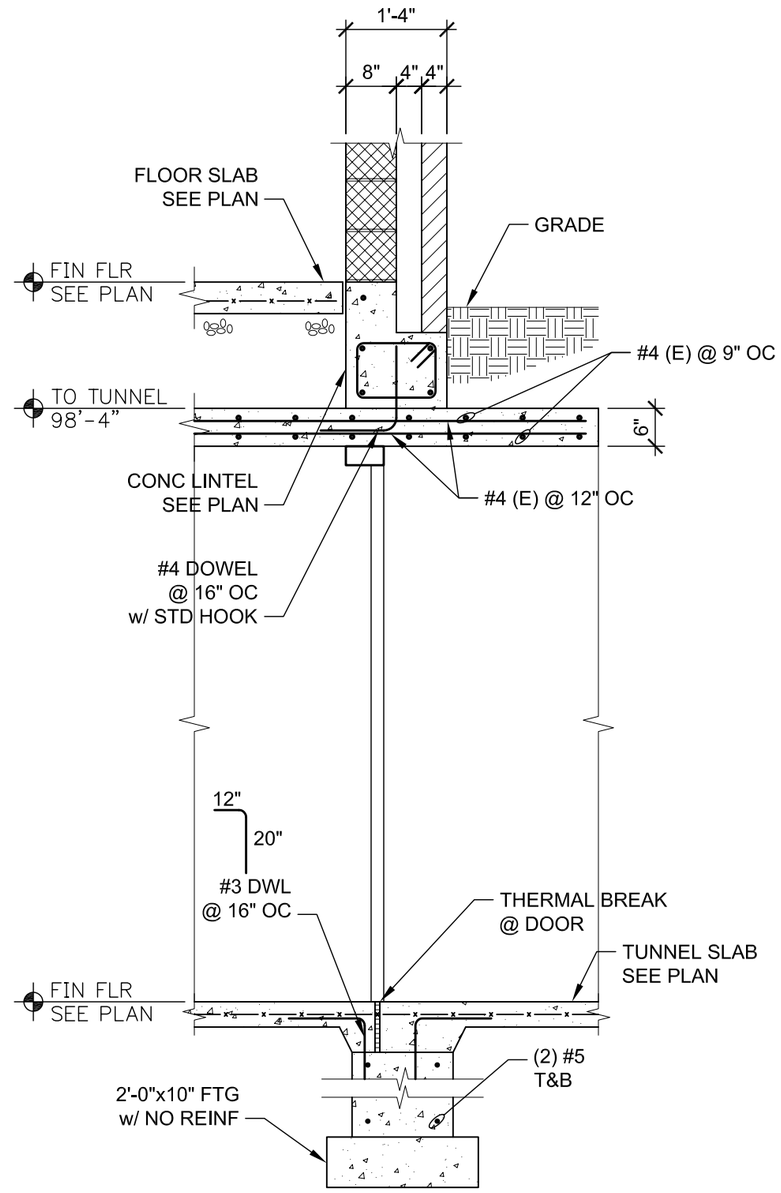


STATIC SCALE TUNNEL SECTION 2

SCALE: 1/2" = 1'-0"

S503



STATIC SCALE TUNNEL SECTION 1

SCALE: 1/2" = 1'-0"

S503

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

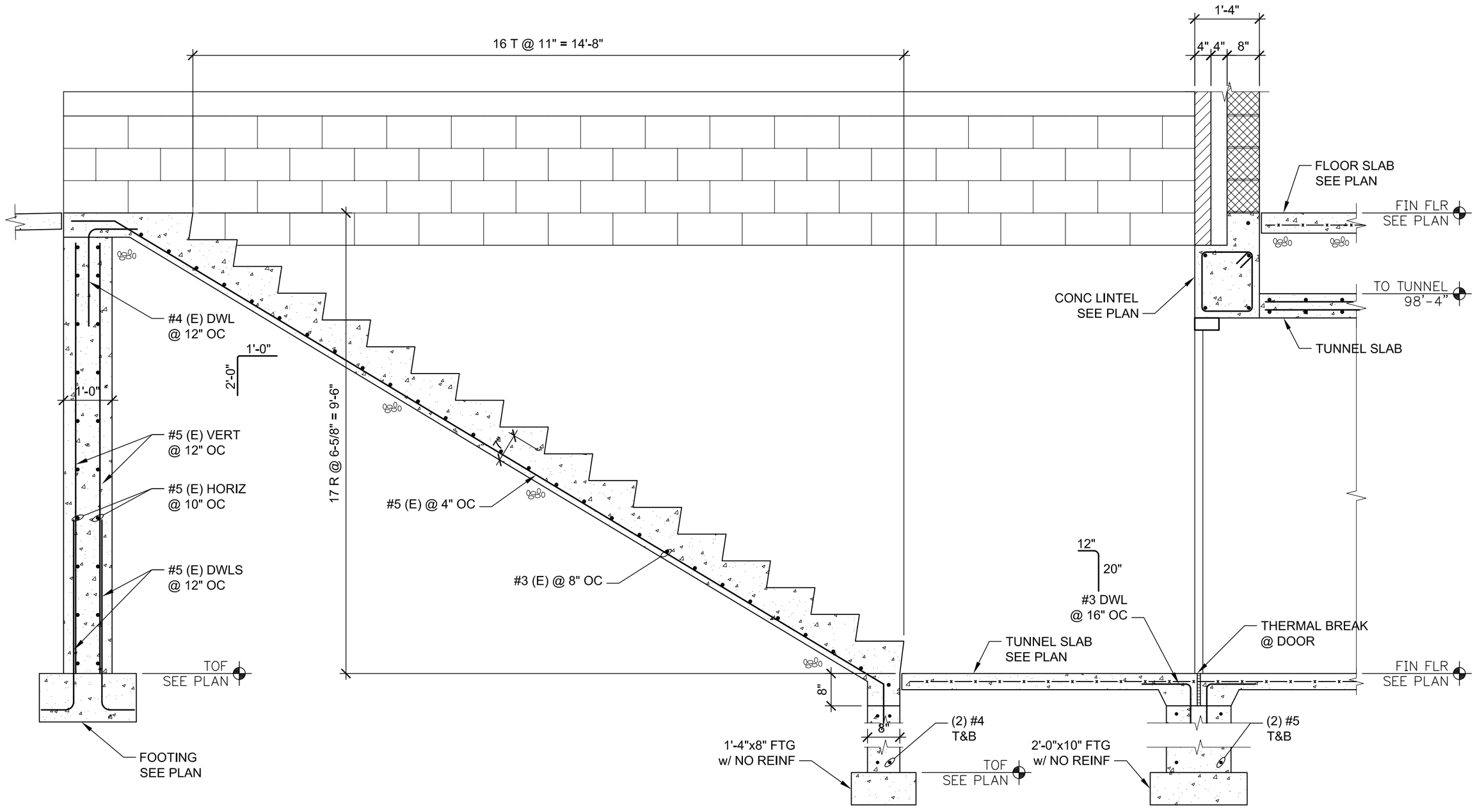
FOUNDATION SECTIONS & DETAILS

DATE: 04/01/14 | FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: | OF | DWG. S503

31 Mar 2014 - 3:46p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



STATIC SCALE STAIR SECTION

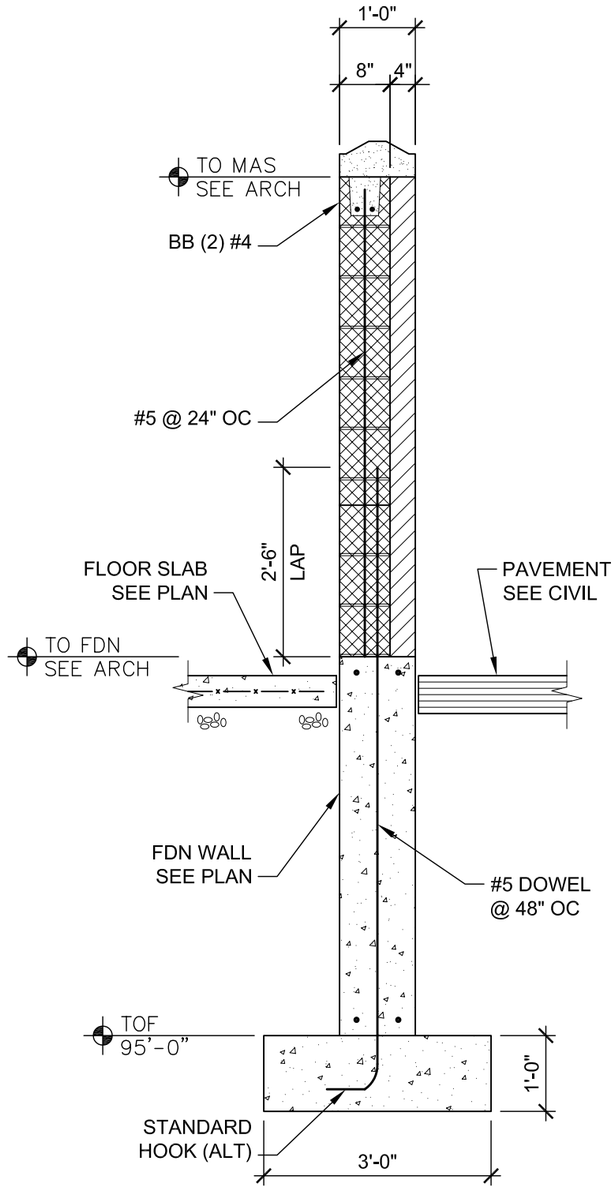
1

SCALE: 1/2" = 1'-0"

S504

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E	
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO:	OF	DWG. S504

31 Mar 2014 - 3:45p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

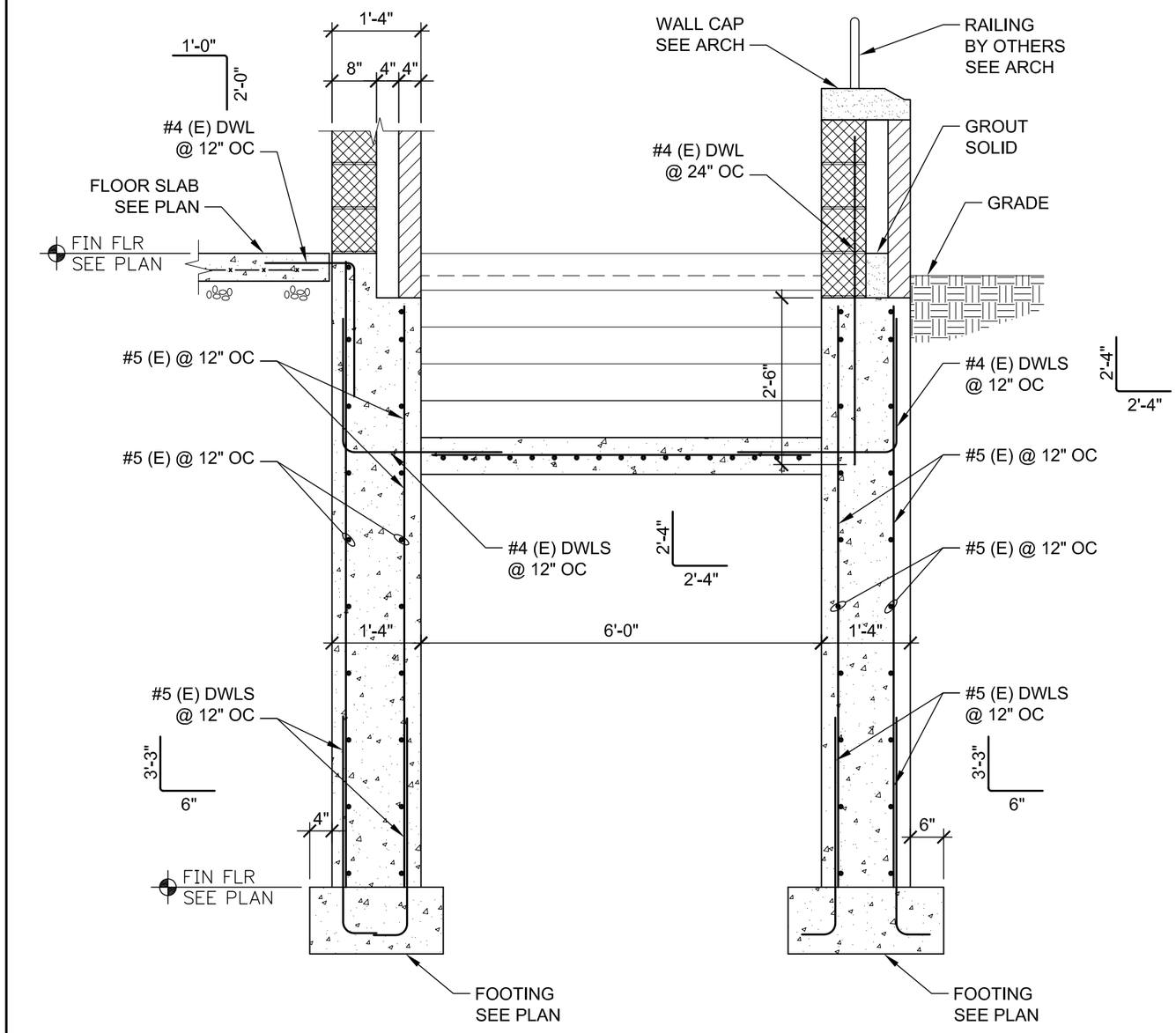


DUMPSTER ENCLOSURE

SCALE: 1/2" = 1'-0"

2

S505



EXT WALL @ SCALE BUILDING

SCALE: 1/2" = 1'-0"

1

S505

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

FOUNDATION SECTIONS & DETAILS

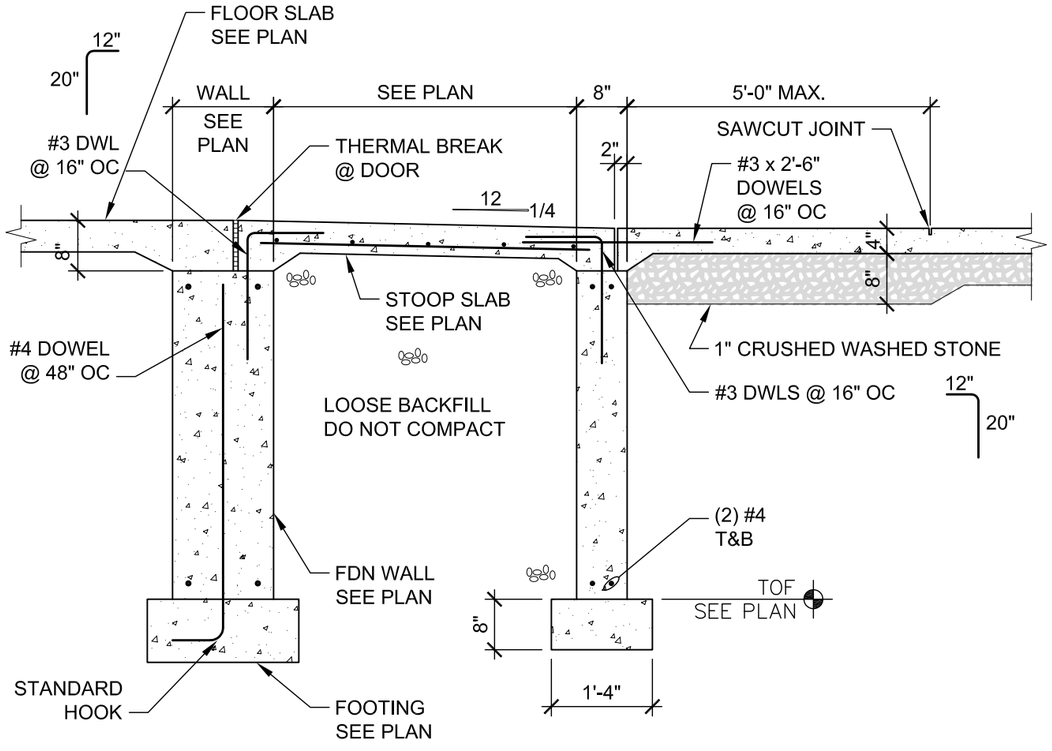
DATE: 04/01/14 | FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS

SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: | OF | DWG. S505

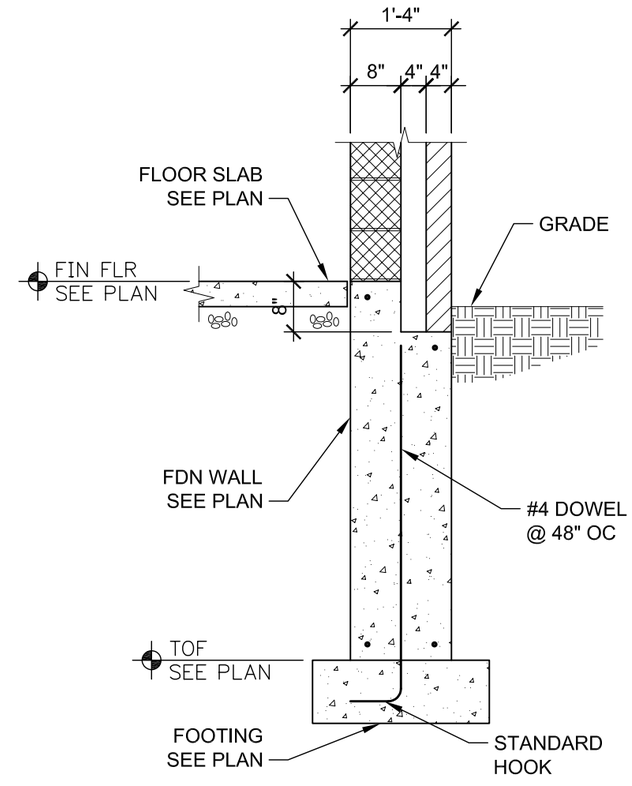
31 Mar 2014 - 3:45p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



CONCRETE STOOP @ SCALE BUILDING

SCALE: 1/2" = 1'-0"

2 S506



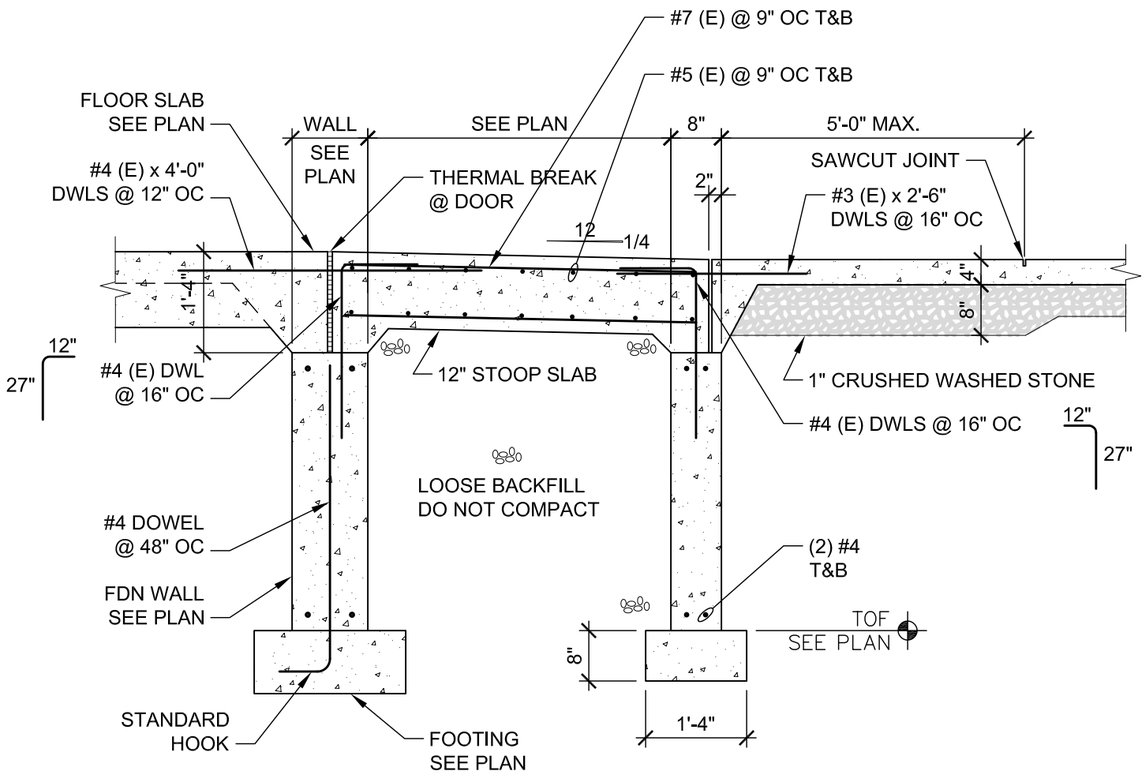
EXT WALL @ SCALE BUILDING

SCALE: 1/2" = 1'-0"

1 S506

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS	DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF / DWG.

31 Mar 2014 - 3:45p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

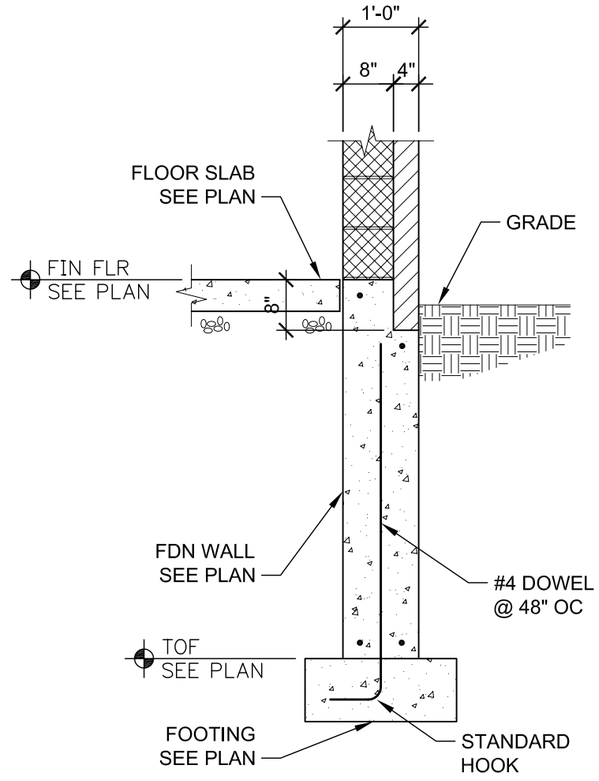


CONCRETE STOOP @ INSPECTION BUILDING

SCALE: 1/2" = 1'-0"

2

S507



EXT WALL @ INSPECTION BLDG

SCALE: 1/2" = 1'-0"

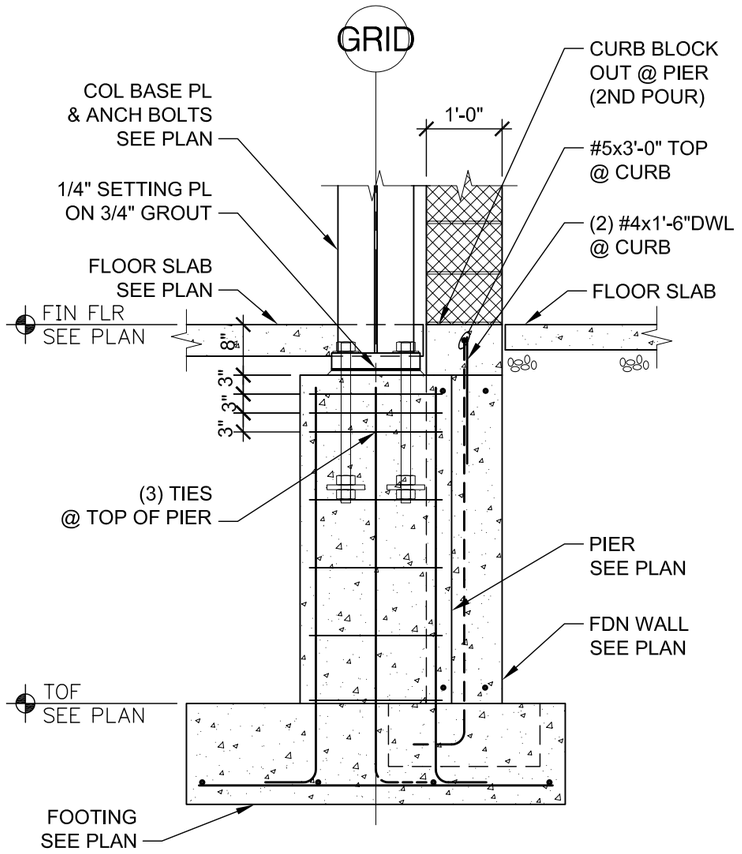
1

S507

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S507

31 Mar 2014 - 3:45p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

NOTE:
SETTING PL TO BE FULLY LEVELED
& GROUT TO BE FULLY CURED
BEFORE SETTING COLUMN

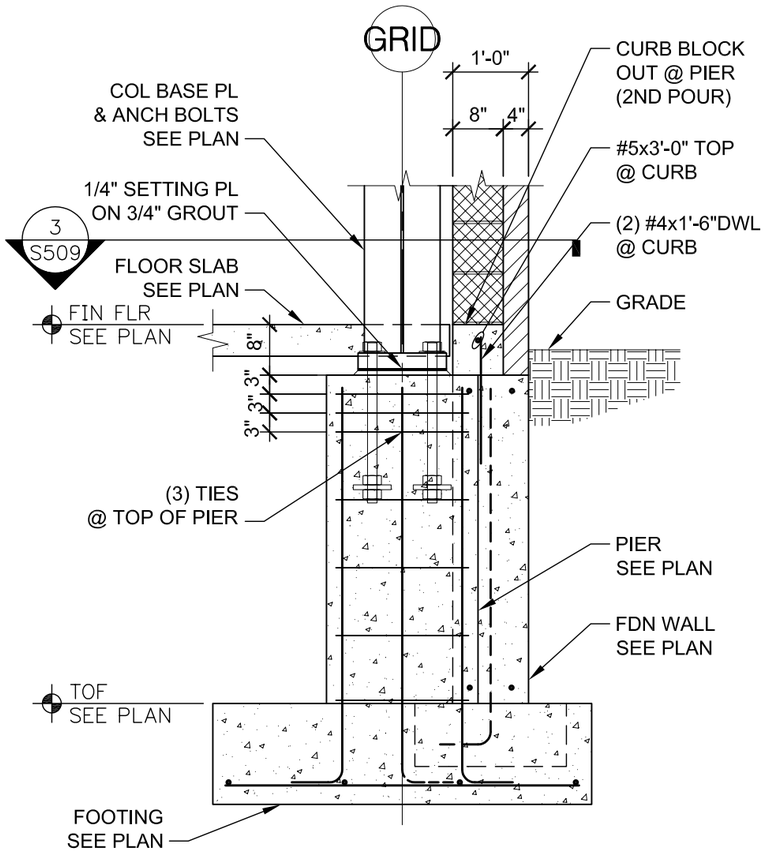


INT COL/PIER @ INSPECTION BLDG

SCALE: 1/2" = 1'-0"

2 S508

NOTE:
SETTING PL TO BE FULLY LEVELED
& GROUT TO BE FULLY CURED
BEFORE SETTING COLUMN



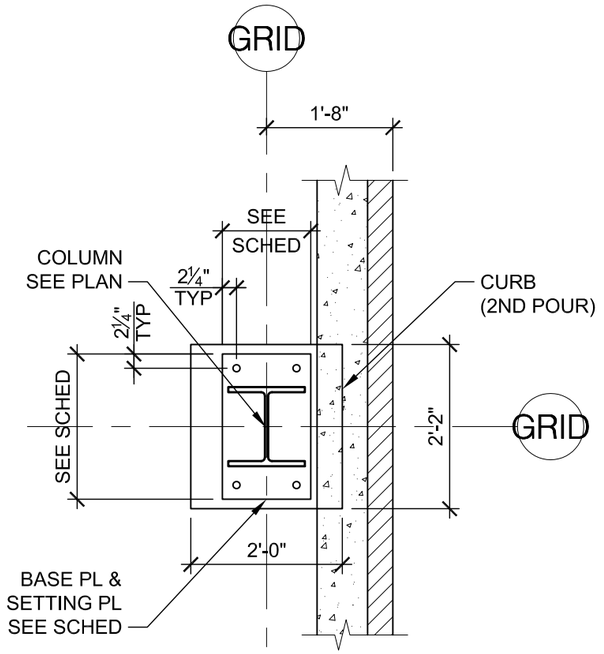
EXT COL/PIER @ INSPECTION BLDG

SCALE: 1/2" = 1'-0"

1 S508

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S508

31 Mar 2014 - 3:45p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

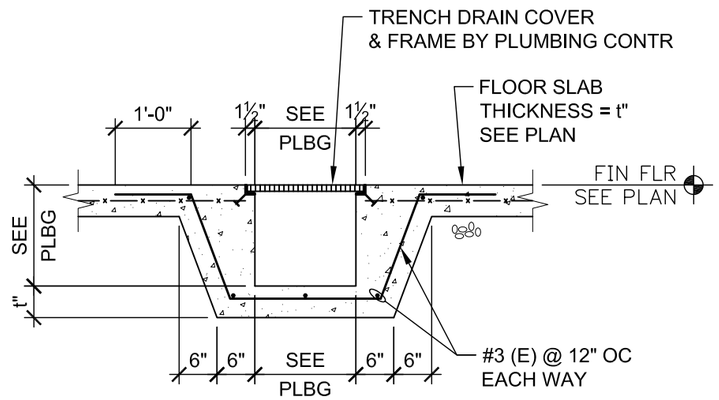


TYP COL/BASE PLATE/PIER DTL

3

SCALE: 1/2" = 1'-0"

S509



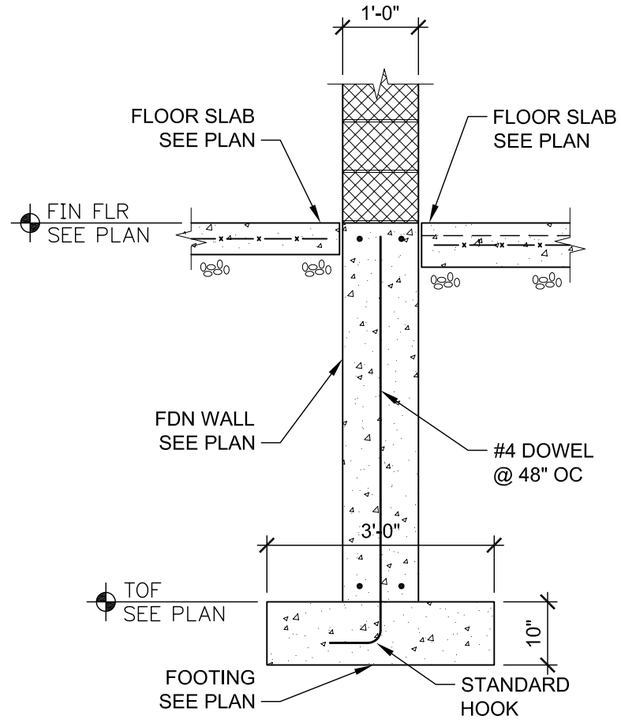
NOTE: PITCH FLOOR SLABS
TO TRENCH DRAINS, TYP

TYP PLUMBING TRENCH

2

SCALE: 1/2" = 1'-0"

S509



INT WALL @ INSPECTION BLDG

1

SCALE: 1/2" = 1'-0"

S509

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

FOUNDATION SECTIONS & DETAILS

DATE: 04/01/14

FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71

HWY: USH 2/ 53

COUNTY: DOUGLAS

SUPERIOR SAFETY & WEIGHT FACILITY NO. 72

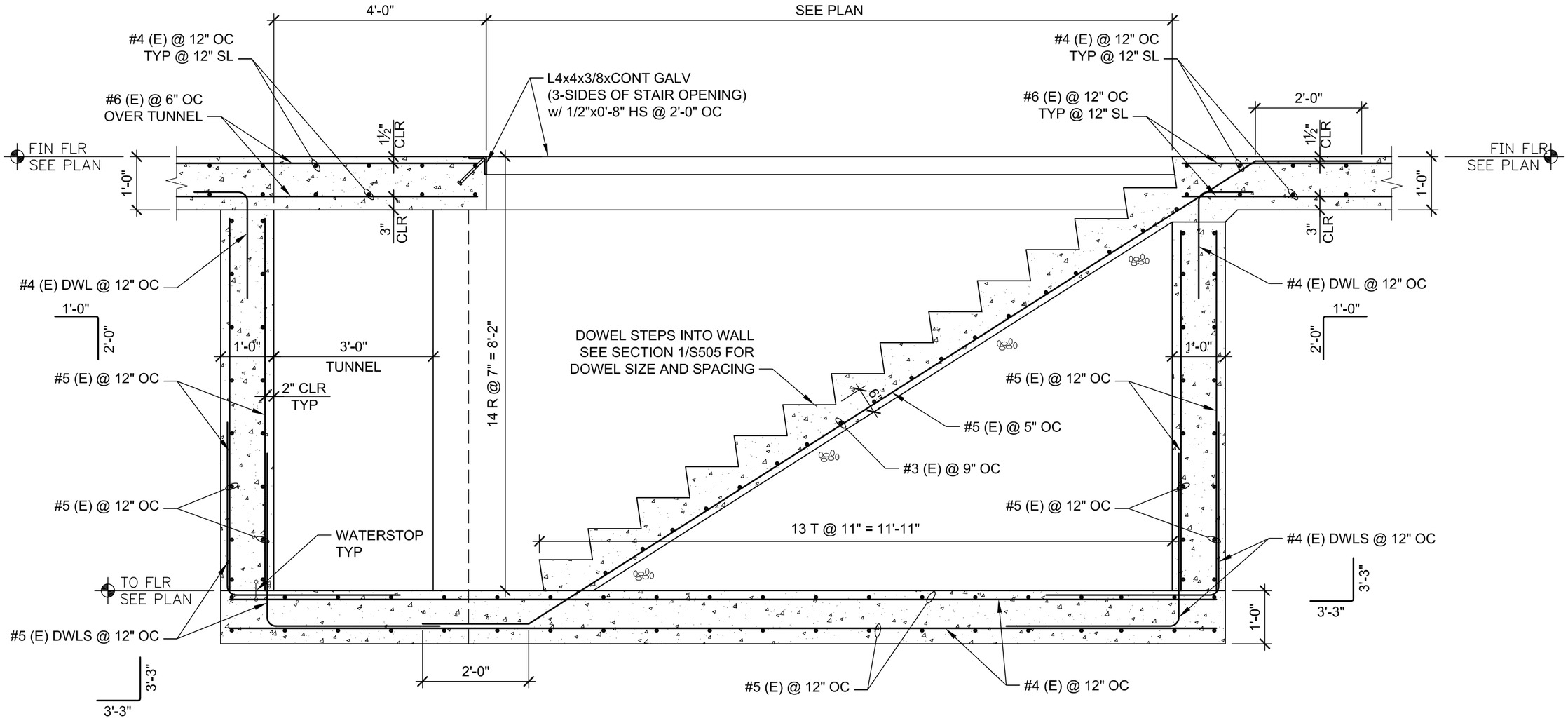
SCALE, FEET 0

SHEET NO:

OF

DWG.

31 Mar 2014 - 3:45p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



INSPECTION PIT STAIR/TUNNEL

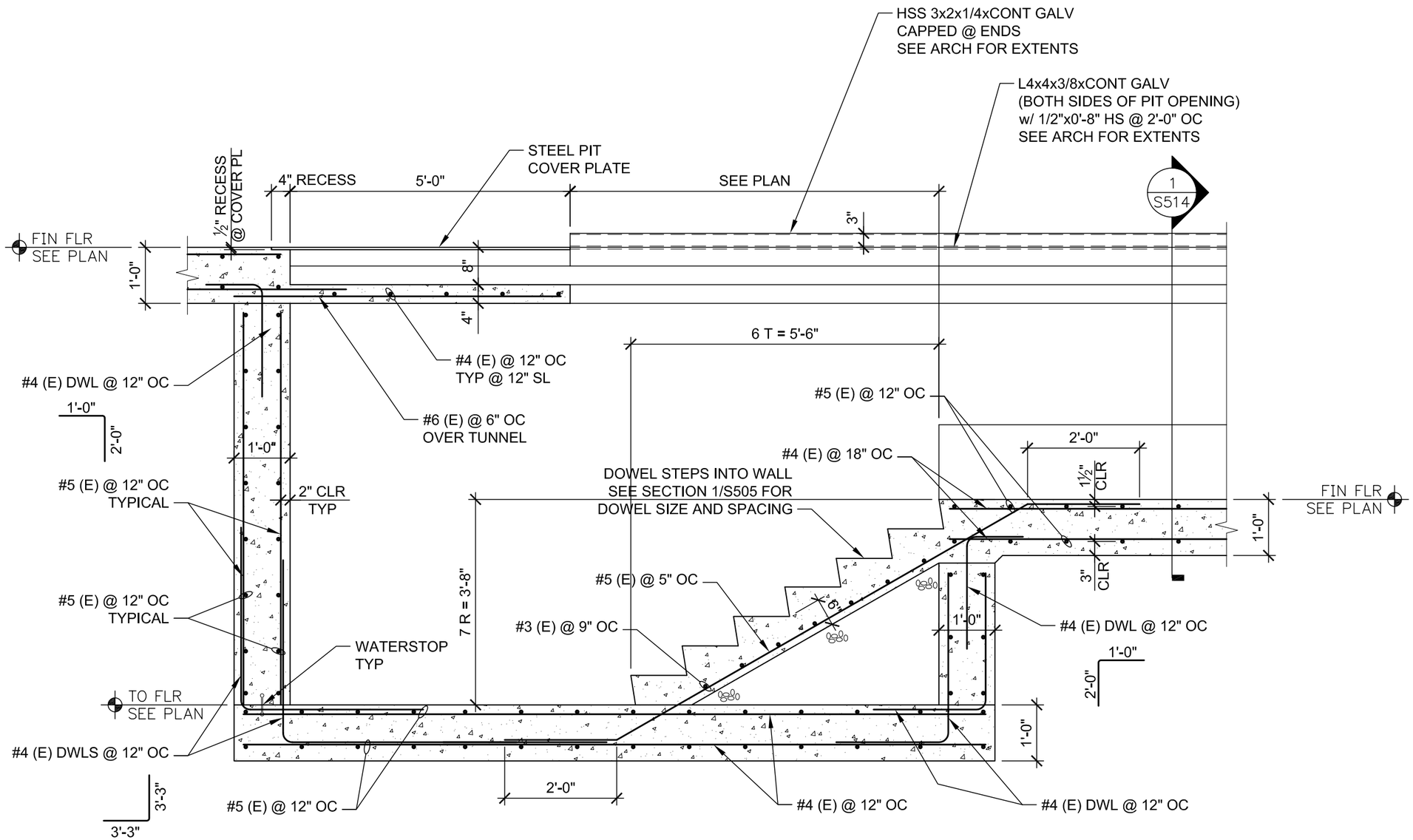
1

S510

SCALE: 1/2" = 1'-0"

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S510

31 Mar 2014 - 3:45p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



INSPECTION PIT BAY ACCESS STAIR/TUNNEL

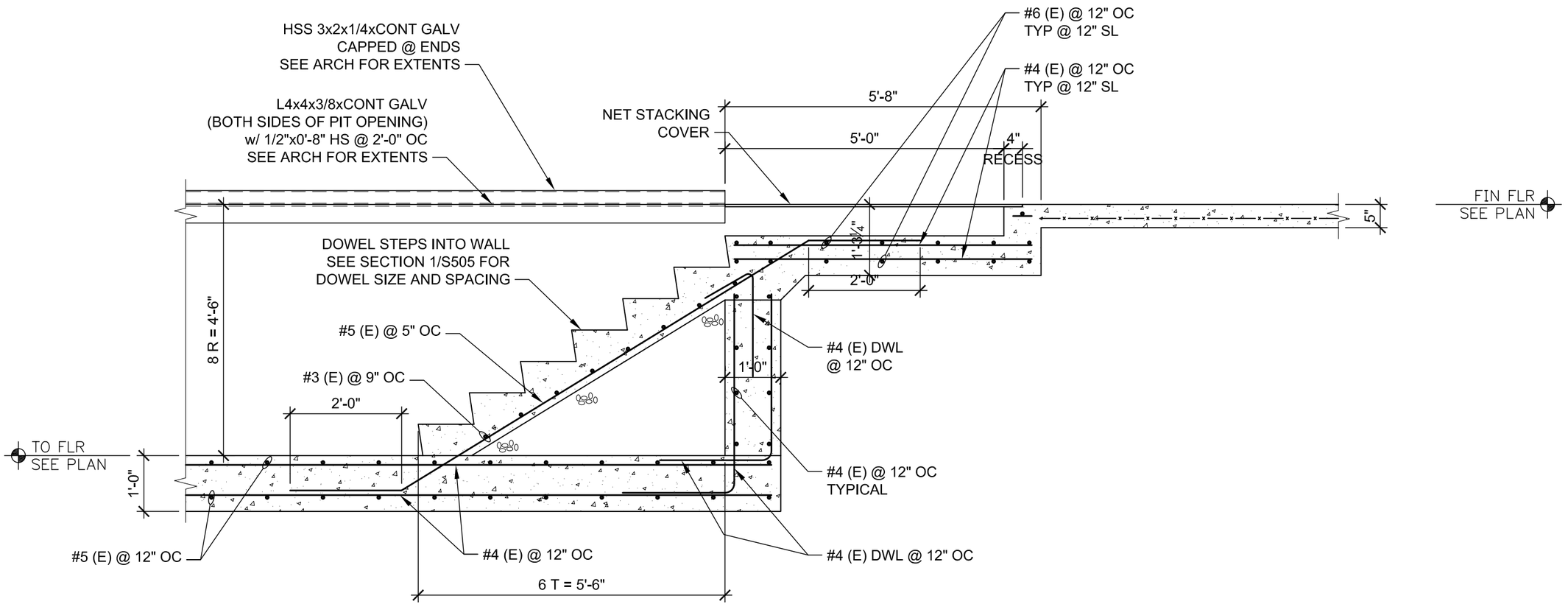
1

SCALE: 1/2" = 1'-0"

S511

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S511

31 Mar 2014 - 3:44p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



INSPECTION PIT BAY ACCESS STAIR/TUNNEL & BRAKE TESTING PIT

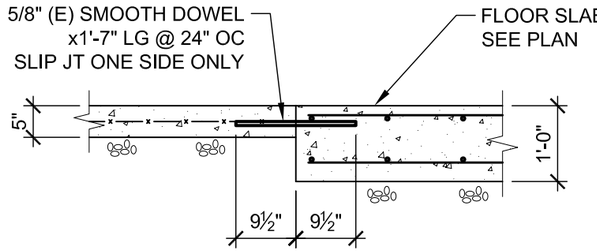
1

SCALE: 1/2" = 1'-0"

S512

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S512

31 Mar 2014 - 3:44p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

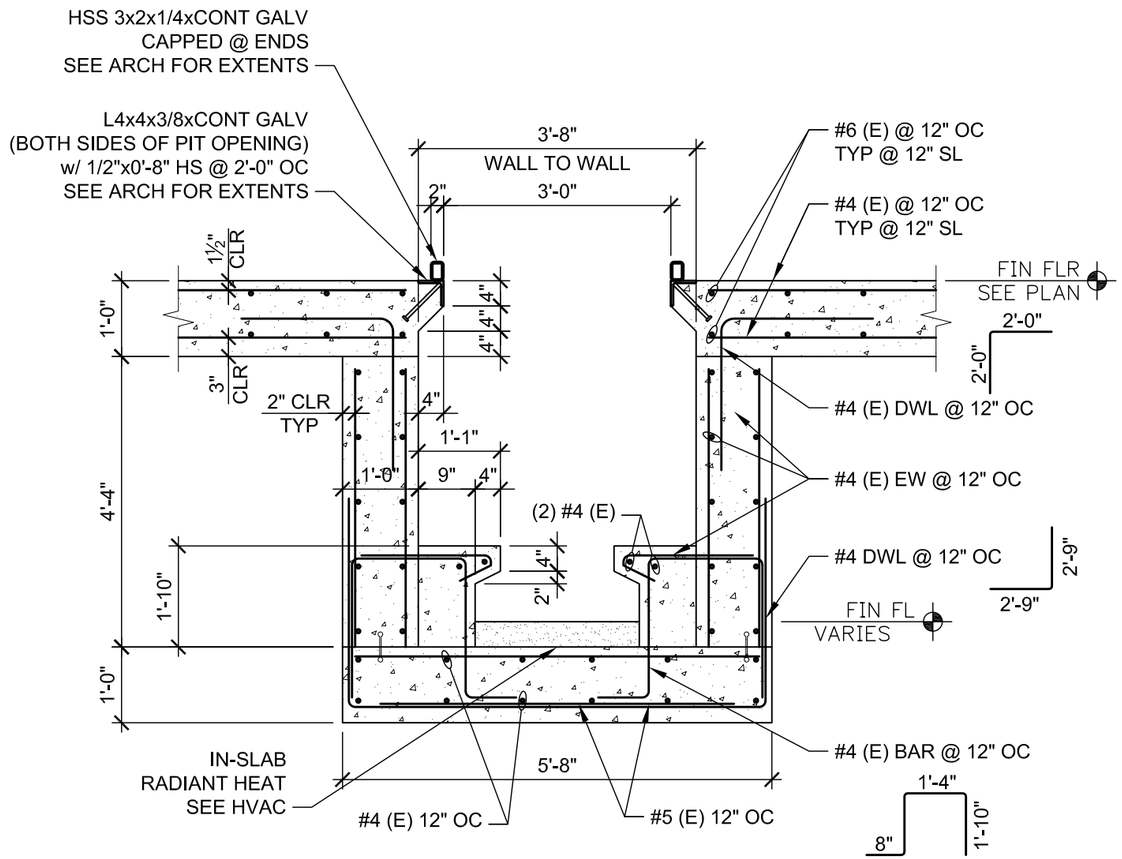


SLAB TRANSITION - INSPEC BLDG

2

SCALE: 1/2" = 1'-0"

S514



INSPECTION PIT

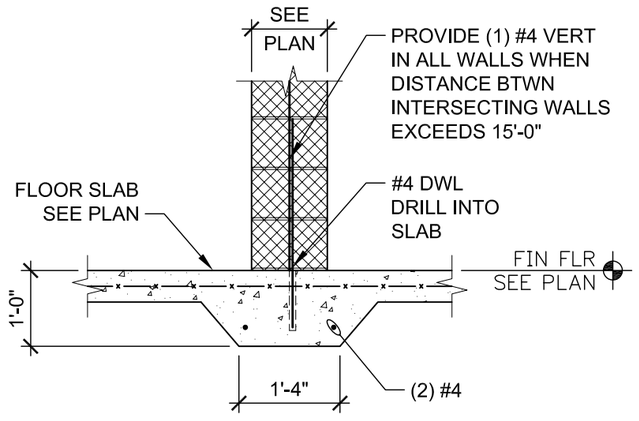
1

SCALE: 1/2" = 1'-0"

S514

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			FOUNDATION SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E	
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO:	OF	DWG.

31 Mar 2014 - 3:43p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

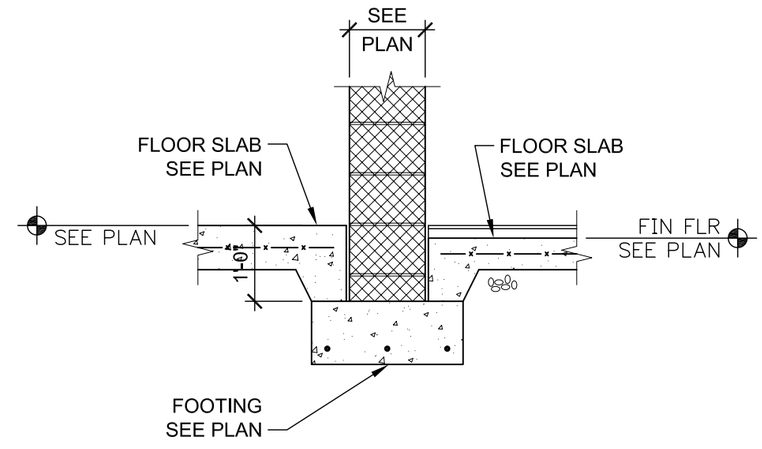


THICK SLAB @ NON-BRG WALL

2

SCALE: 1/2" = 1'-0"

S515



TYP INT BEARING WALL

1

SCALE: 1/2" = 1'-0"

S515

NOT USED

3

SCALE: 1/2" = 1'-0"

S515

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

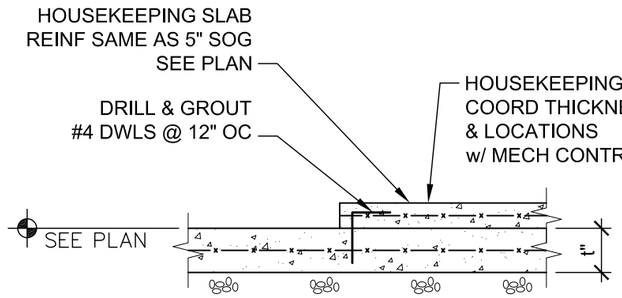
FOUNDATION SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF | DWG. S515

31 Mar 2014 - 3:43p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

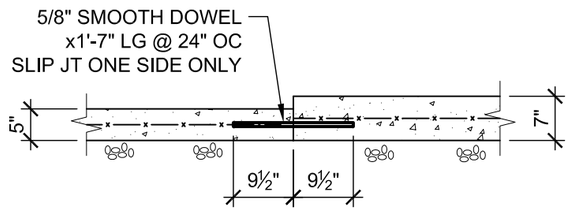


TYP HOUSEKEEPING SLABS

SCALE: 1/2" = 1'-0"

3

S516

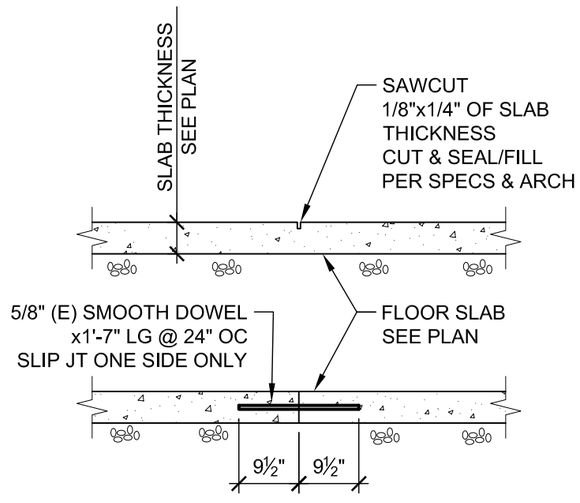


SLAB THICK CHANGE - SCALE BLDG

SCALE: 1/2" = 1'-0"

2

S516



PROVIDE CONSTRUCTION OR
CRACK CONTROL JOINTS:
5" SLAB - 13'-0" OC EW
7" SLAB - 18'-0" OC EW
12" SLAB - 25'-0" OC EW

TYP SLAB JOINTS

SCALE: 1/2" = 1'-0"

1

S516

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

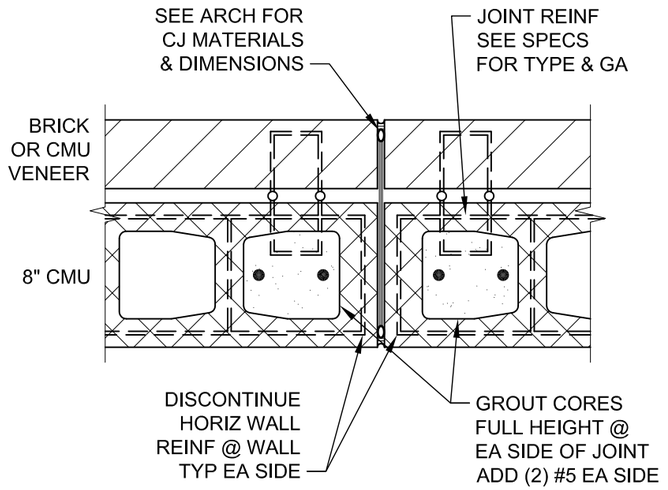
FOUNDATION SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF DWG. S516

31 Mar 2014 - 3:43p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

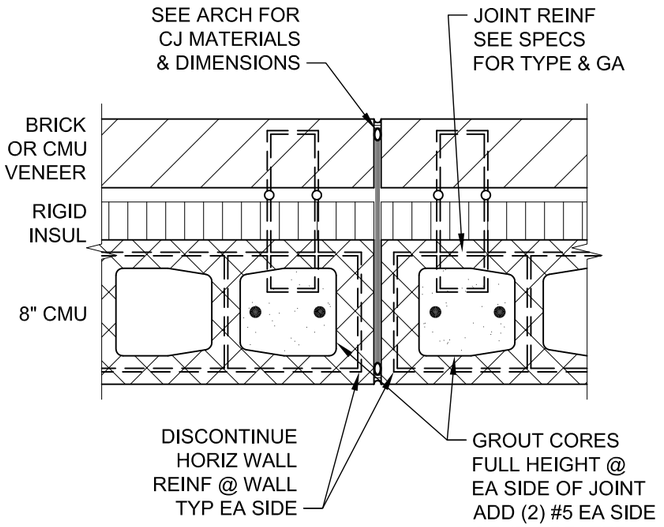


EXTERIOR CONTROL JOINT

3

SCALE: 1½" = 1'-0"

S517

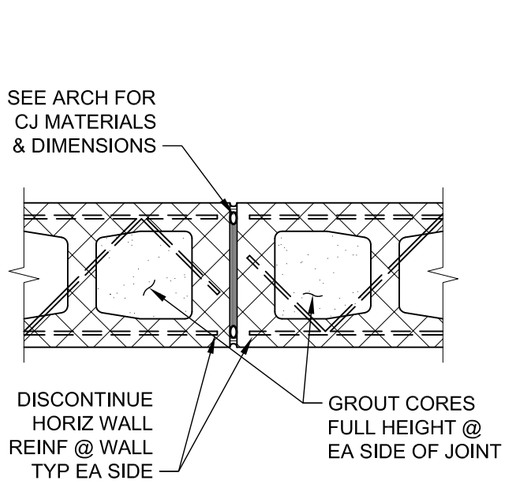


EXTERIOR CONTROL JOINT

2

SCALE: 1½" = 1'-0"

S517



INTERIOR CONTROL JOINT

1

SCALE: 1½" = 1'-0"

S517

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

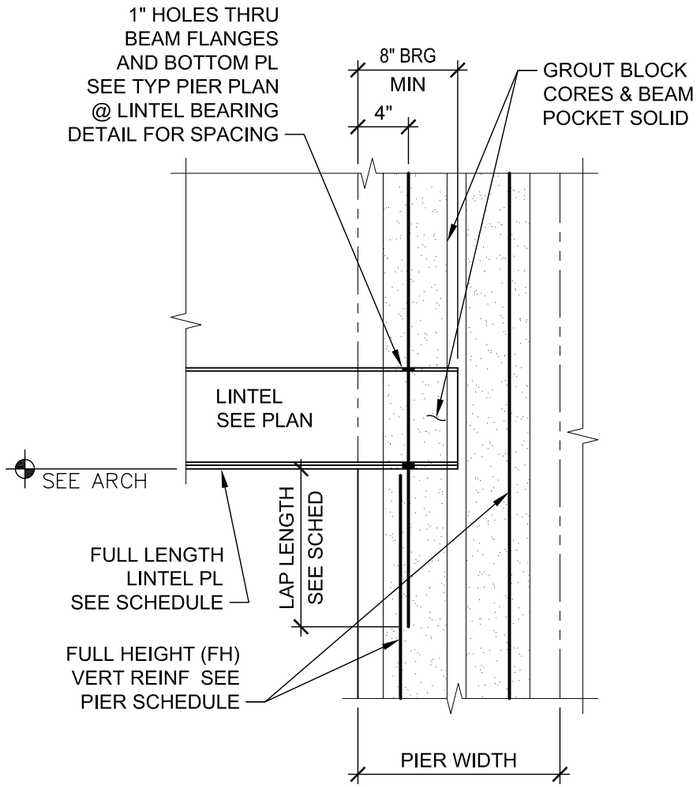
EXTERIOR AND INTERIOR WALL SECTIONS & DETAILS

DATE: 04/01/14 | FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: | OF | DWG. S517

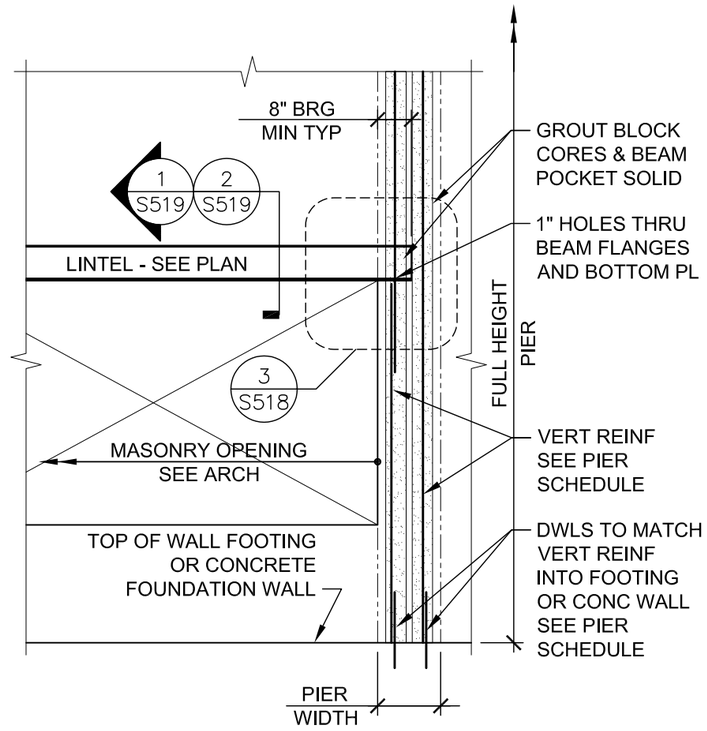
31 Mar 2014 - 3:43p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



TYP LINTEL BRG @ FULL HT PIER

3 S518

SCALE: NTS

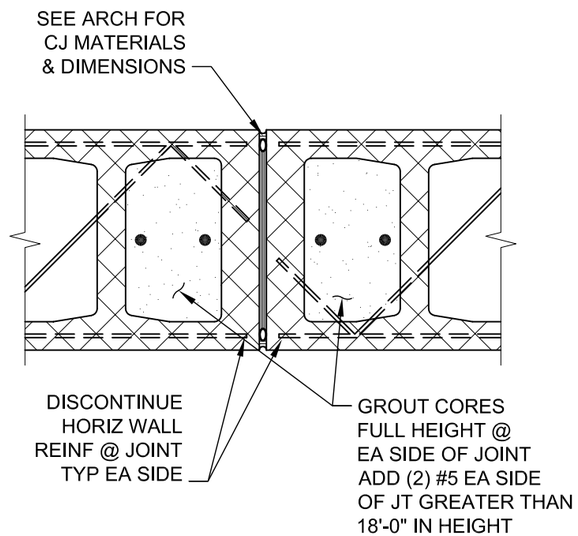


OPENINGS 6'-0" WIDE & LARGER, INTERIOR & EXTERIOR

FULL HT PIER REINF @ LINTEL

2 S518

SCALE: NTS



EXTERIOR CONTROL JOINT

1 S518

SCALE: 1½" = 1'-0"

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

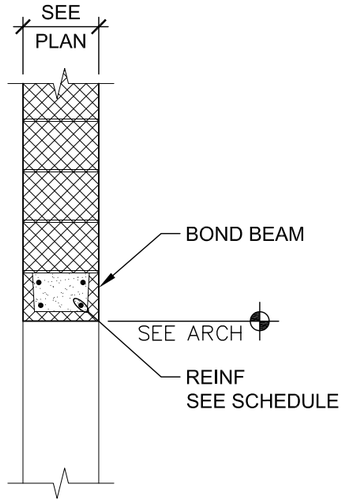
EXTERIOR AND INTERIOR WALL SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF DWG. S518

31 Mar 2014 - 3:43p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

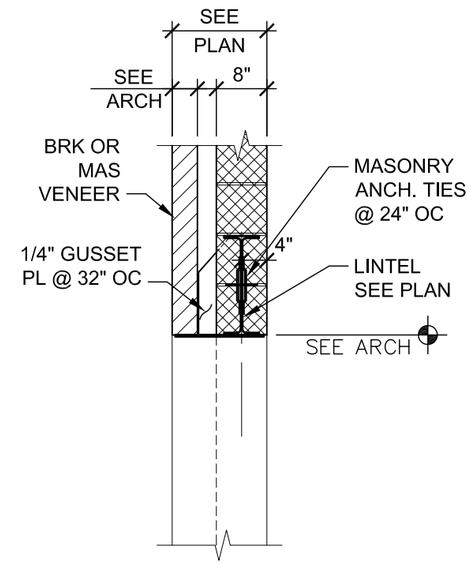


LINTEL TYPE C

3

SCALE: 1/2" = 1'-0"

S519

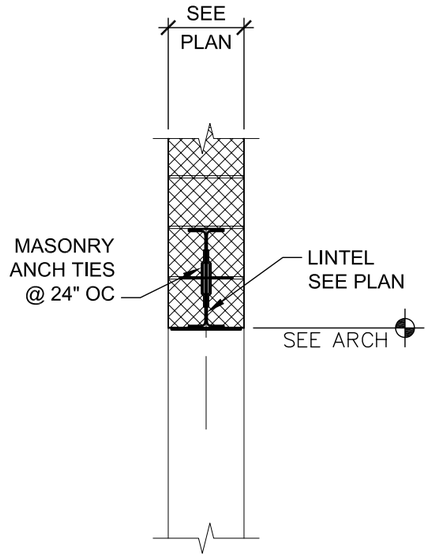


LINTEL TYPE B

2

SCALE: 1/2" = 1'-0"

S519



LINTEL TYPE A

1

SCALE: 1/2" = 1'-0"

S519

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

EXTERIOR AND INTERIOR WALL SECTIONS & DETAILS

DATE: 04/01/14

FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71

HWY: USH 2/ 53

COUNTY: DOUGLAS

SUPERIOR SAFETY & WEIGHT FACILITY NO. 72

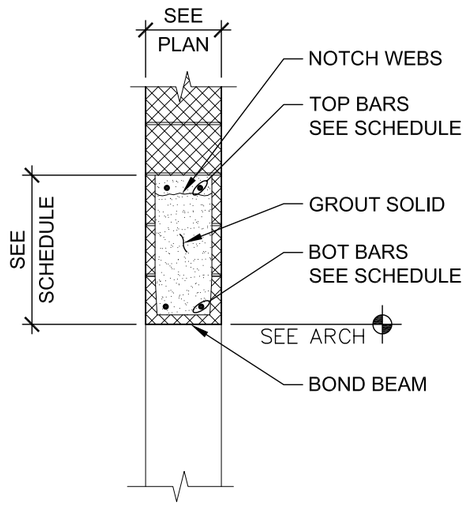
SCALE, FEET 0

SHEET NO:

OF

DWG.

31 Mar 2014 - 3:43p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



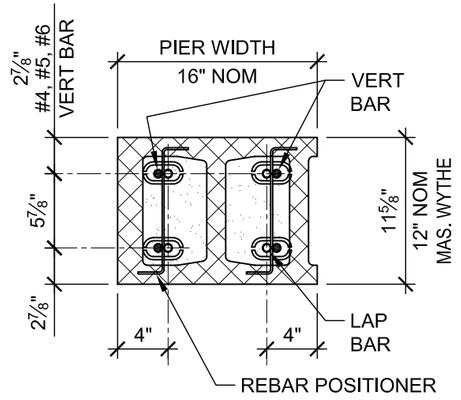
LINTEL TYPE D

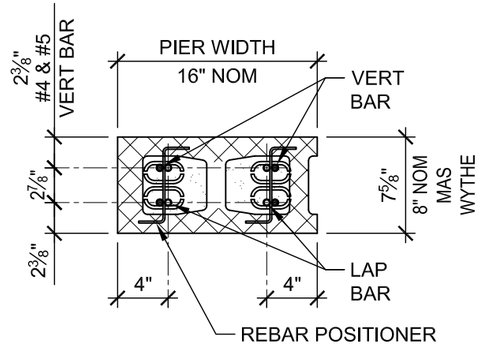
SCALE: 1/2" = 1'-0"

2 S520

PIER REINFORCING LAP SCHEDULE			
REINF SIZE	MASONRY WYTHE	COVER	LAP LENGTH, Ld
#4	8"	2-3/8"	25"
#5	8"	2-3/8"	41"
#4	12"	2-7/8"	22"
#5	12"	2-7/8"	33"

- LAP LENGTH (Ld) CALCULATION PER IBC2000 SECTION 2107.2.3





TYP PIER PLAN @ LINTEL BRG & PIER REINFORCING LAP SCHEDULE

SCALE: 1" = 1'-0"

1 S520

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

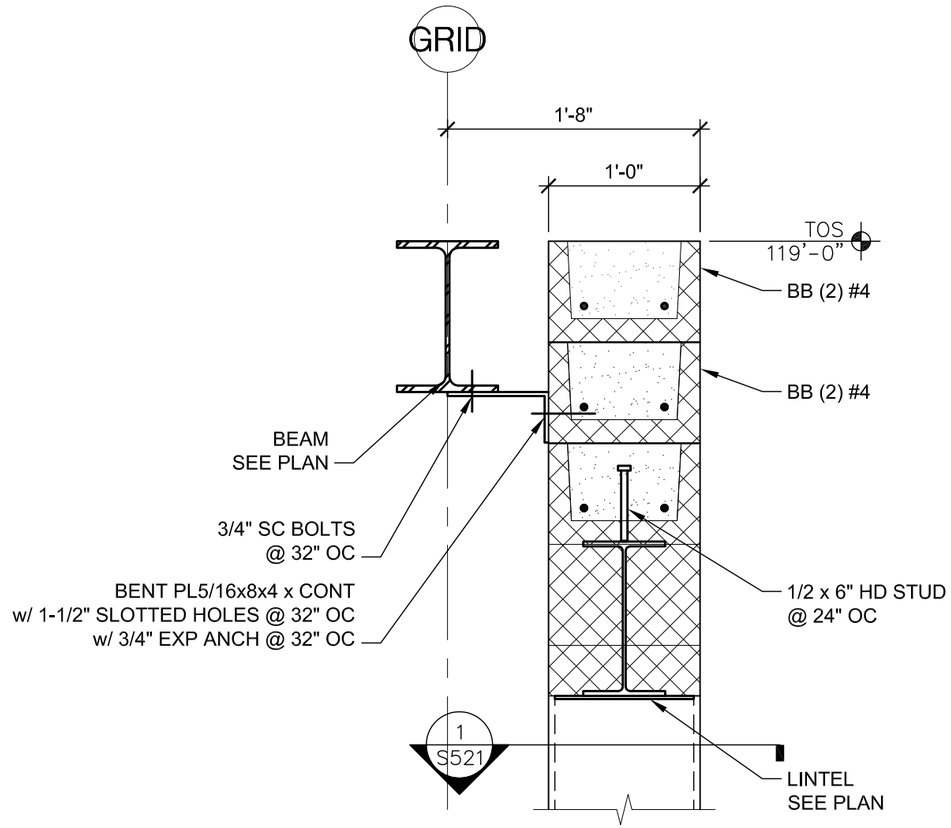
EXTERIOR AND INTERIOR WALL SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF | DWG.

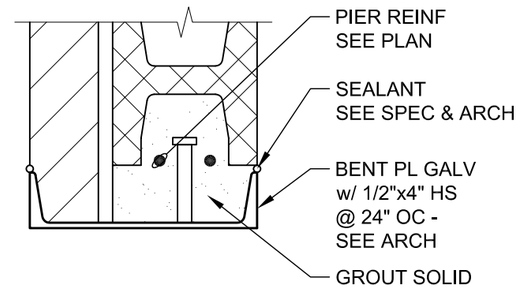
31 Mar 2014 - 3:42p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



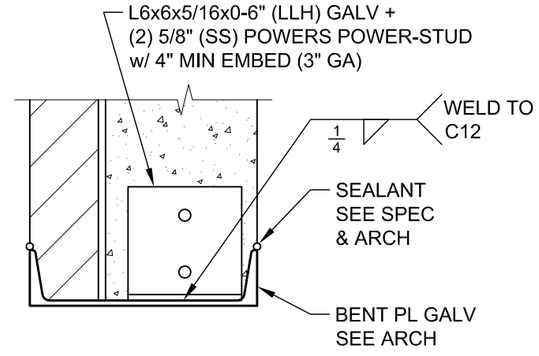
GARAGE DOOR HEAD

SCALE: 1" = 1'-0"

2 S521



PLAN VIEW



PLAN VIEW @ FLR LEVEL

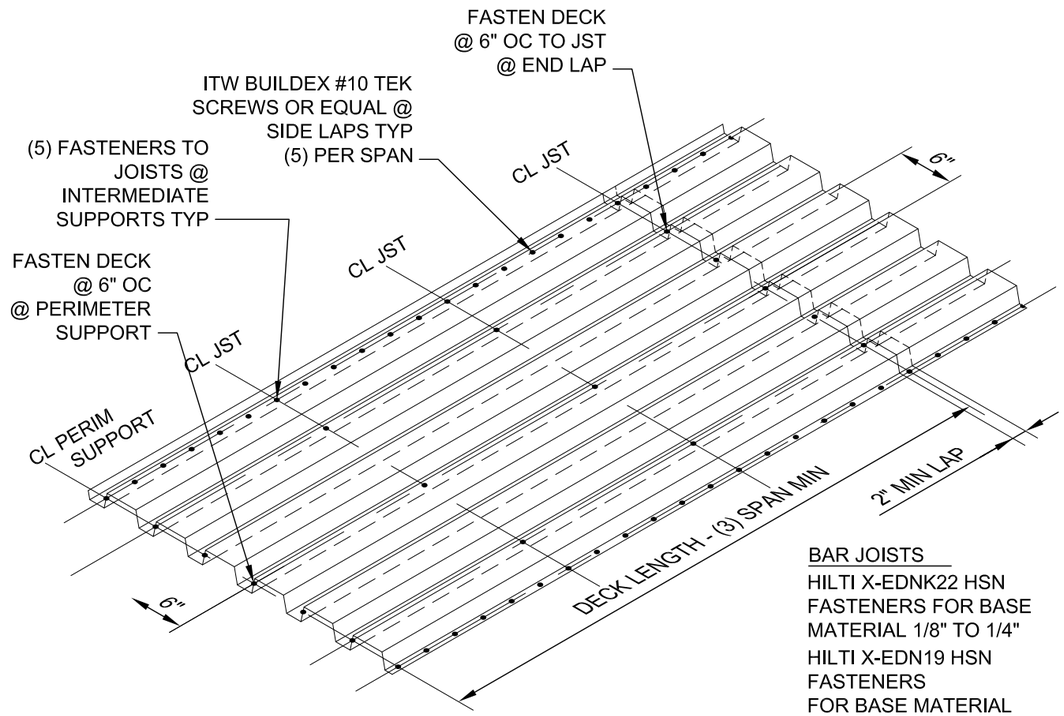
GARAGE DOOR JAMB

SCALE: 1 1/2" = 1'-0"

1 S521

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			EXTERIOR AND INTERIOR WALL SECTIONS & DETAILS	DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF / DWG. S521

31 Mar 2014 - 3:42p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



BAR JOISTS

HILTI X-EDNK22 HSN FASTENERS FOR BASE MATERIAL 1/8" TO 1/4"

HILTI X-EDN19 HSN FASTENERS FOR BASE MATERIAL 1/4" TO 3/8"

STRUCTURAL STEEL

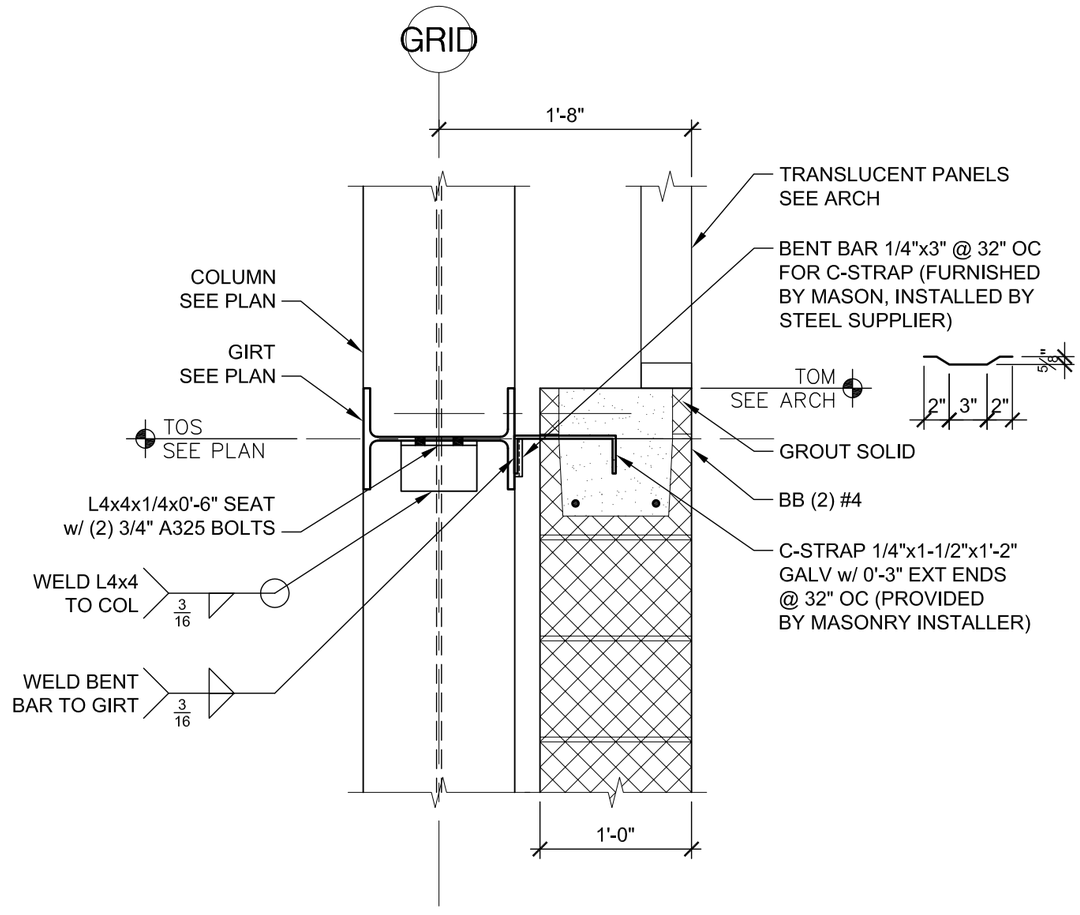
HILTI ENP2/ENPH2 FASTENERS FOR BASE MATERIAL 1/4" OR GREATER

TYPE B ROOF DECK FASTENER PATTERN

SCALE: NTS

2

S522



TYPICAL TOP OF WALL w/ GIRT

SCALE: 1" = 1'-0"

1

S522

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

SECTIONS & DETAILS

DATE: 04/01/14 | FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS

SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: | OF | DWG. S522

31 Mar 2014 - 3:42p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

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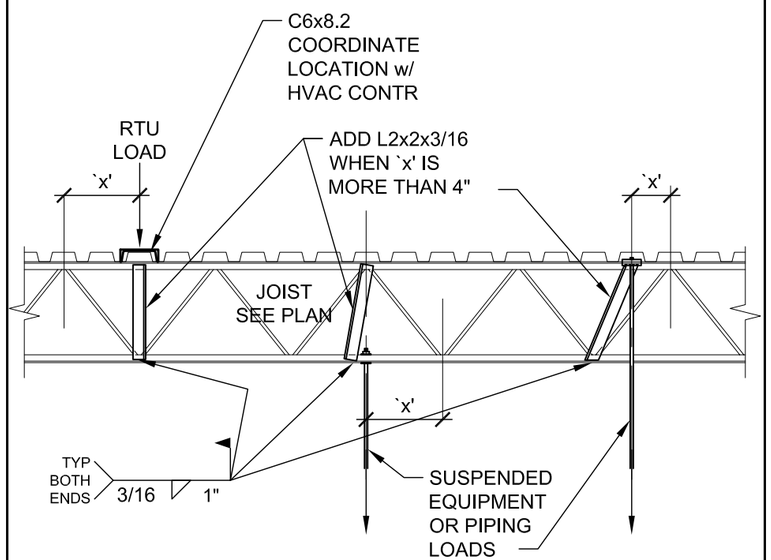
NOT USED

3 S523

SCALE: 1/2" = 1'-0"

JOIST REINF @ ADDED LOADS

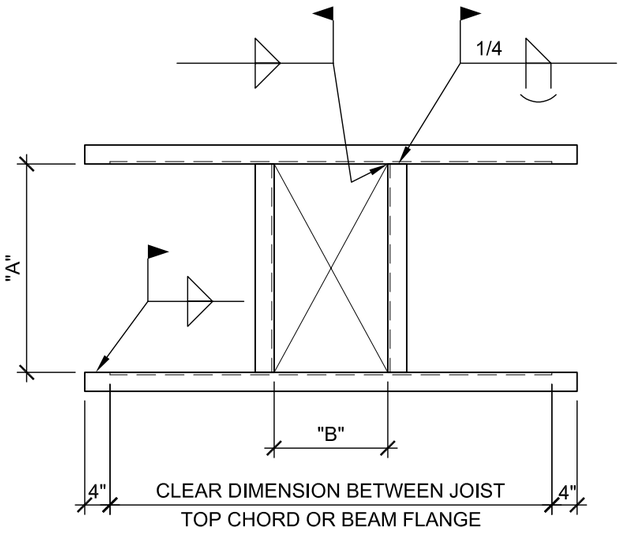


WELD L2x2x3/16 TO JOIST CHORDS FROM LOAD POINT TO PANEL POINT WHERE CONCENTRATED LOADS ARE NOT AT PANEL POINT LOCATIONS.

2 S523

SCALE: NTS

ROOF DECK OPENING FRAMING

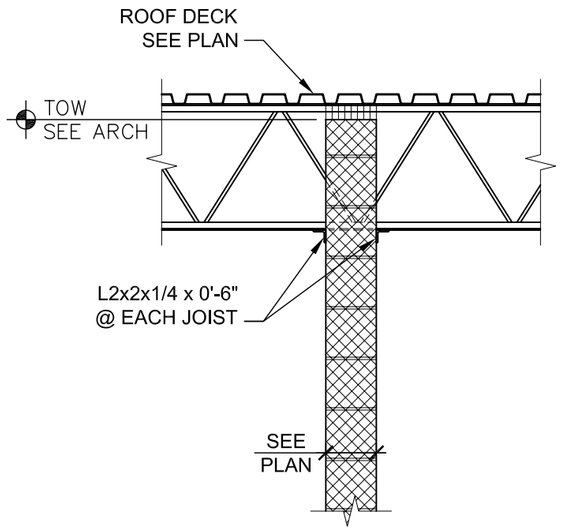


- SEE HVAC FOR LOCATION & SIZE REQUIRED.
- DETAIL IS TYPICAL @ OPENINGS GREATER THAN 10", INCLUDING ROOF DRAIN/SUMPS.
- DIMENSIONS "A" & "B" BY MECHANICAL CONTRACTOR & ROOF SUMP SUPPLIER.

1 S523

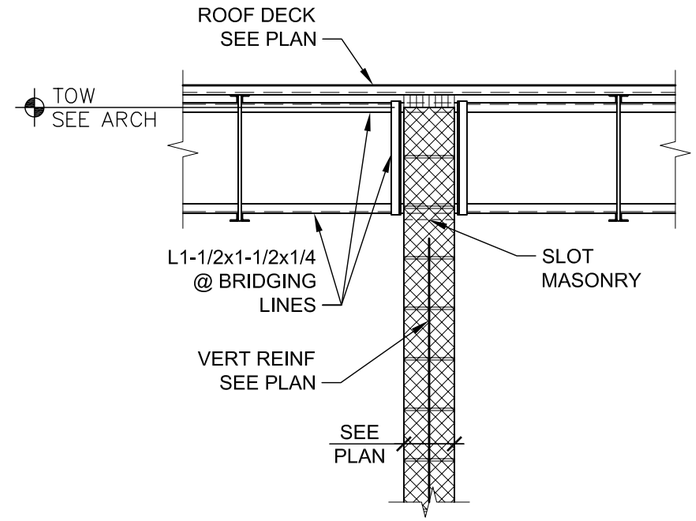
SCALE: 1/2" = 1'-0"

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			ROOF SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S500



NON-BRG. WALL BRACING DETAIL 3

SCALE: 1/2" = 1'-0" S524



NON-BRG. WALL BRACING DETAIL 2

SCALE: 1/2" = 1'-0" S524

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			ROOF SECTIONS & DETAILS		DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF	DWG. S524

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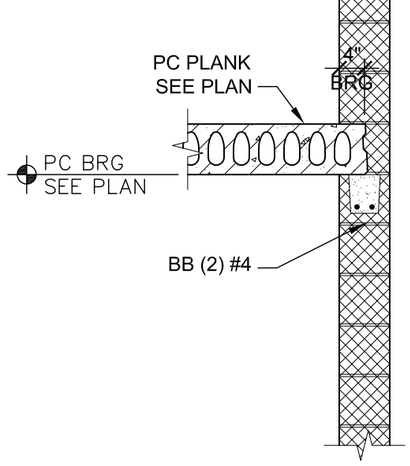
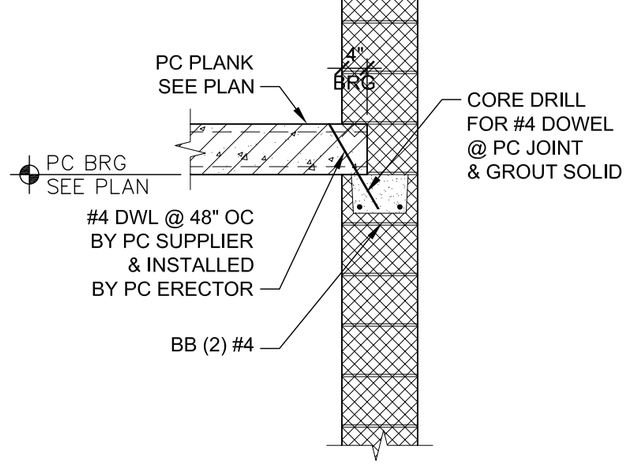
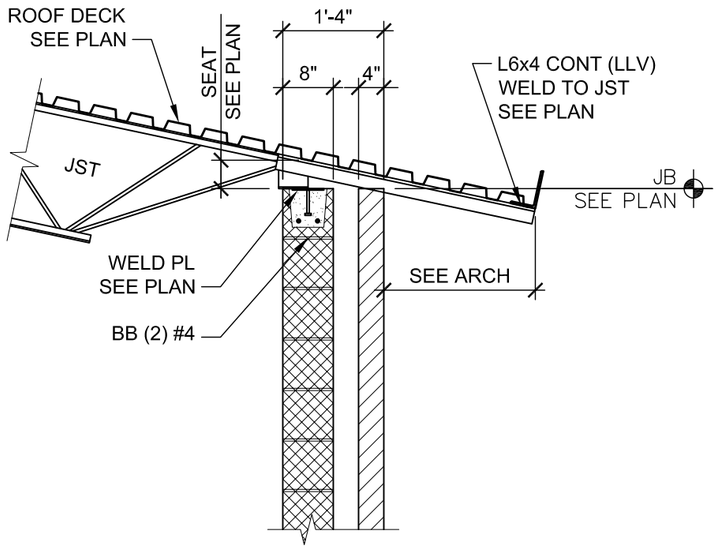




NOT USED	3	PC BRG WALL SECTION	2	PC BRG WALL SECTION	1
SCALE: 1/2" = 1'-0"	S525	SCALE: 1/2" = 1'-0"	S525	SCALE: 1/2" = 1'-0"	S525

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			PRECAST CAP SECTIONS @ STORAGE 102	DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF / DWG. S525

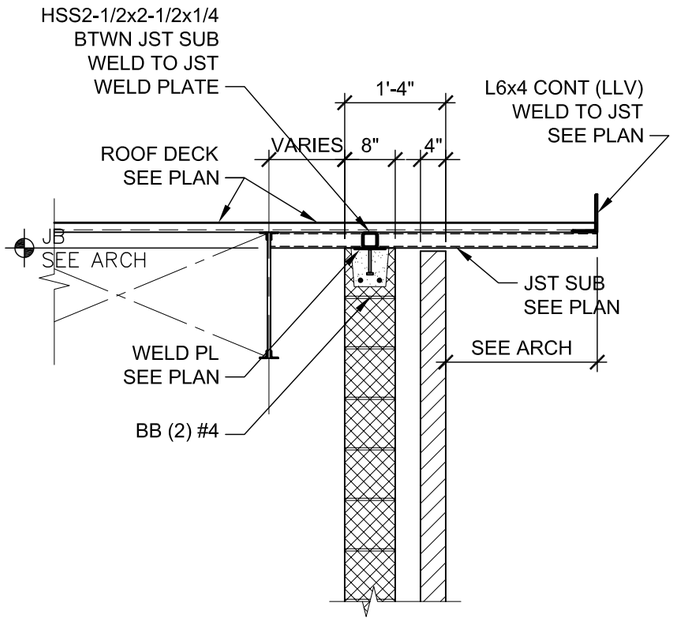


JOIST BRG @ EXT WALL

SCALE: 1/2" = 1'-0"

3

S526

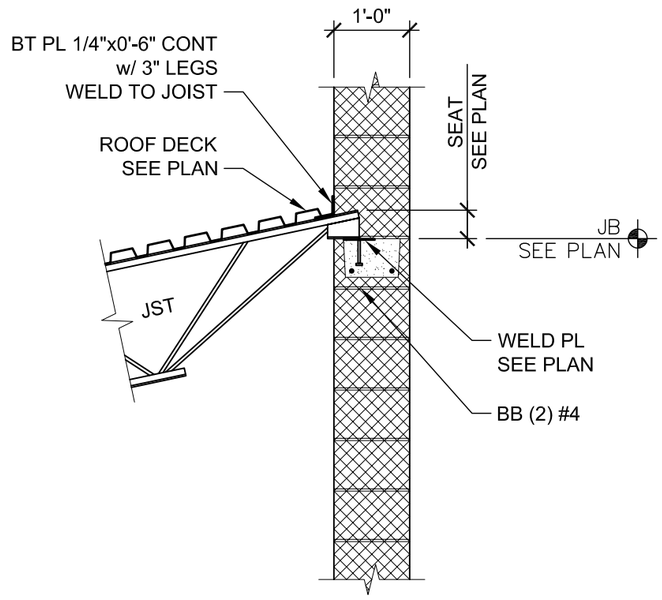


JOIST BRG @ EXT WALL

SCALE: 1/2" = 1'-0"

2

S526



JOIST @ MAS WALL

SCALE: 1/2" = 1'-0"

1

S526

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

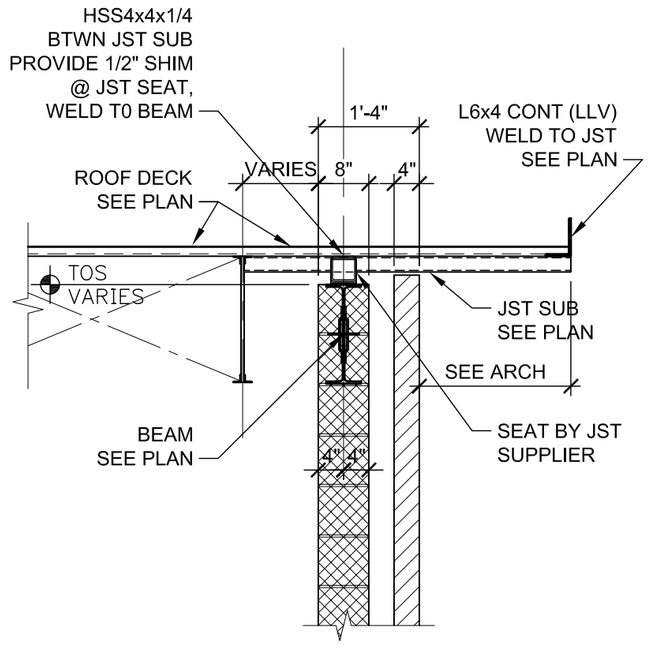
ROOF SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF DWG. S526

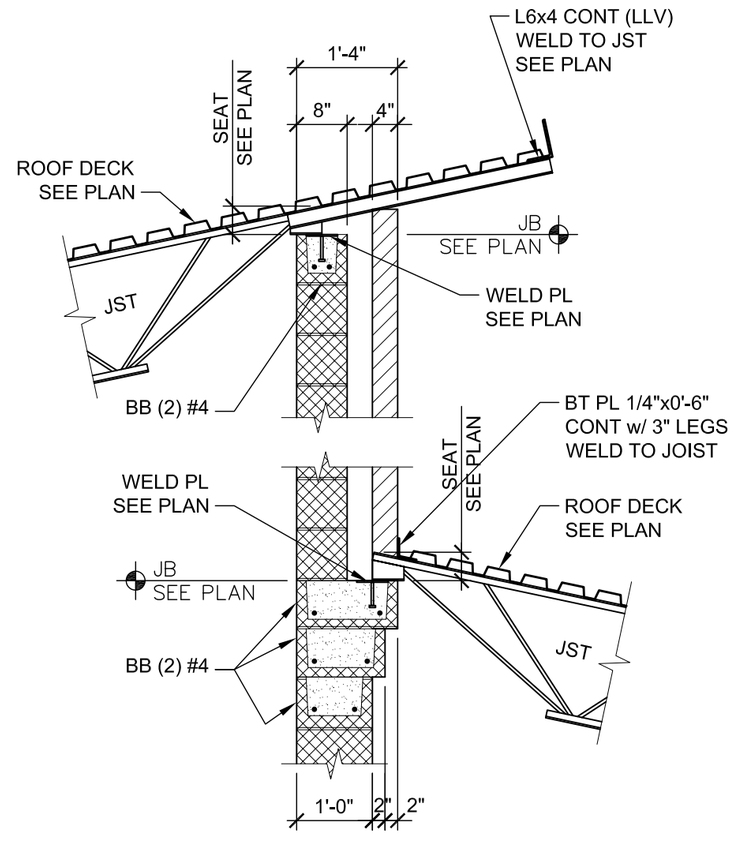
31 Mar 2014 - 3:41p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



JOIST BRG @ EXT WALL

SCALE: 1/2" = 1'-0"

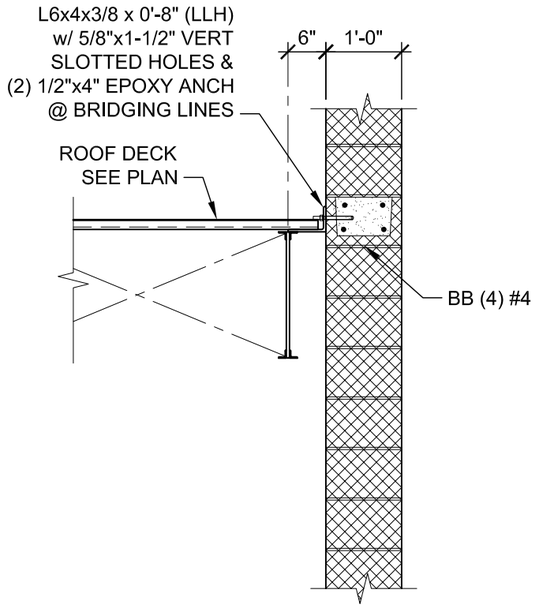
3 S527



HIGH-LOW ROOF SECTION

SCALE: 1/2" = 1'-0"

2 S527



JOIST PARALLEL TO MAS WALL

SCALE: 1/2" = 1'-0"

1 S527

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

ROOF SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF DWG. S527

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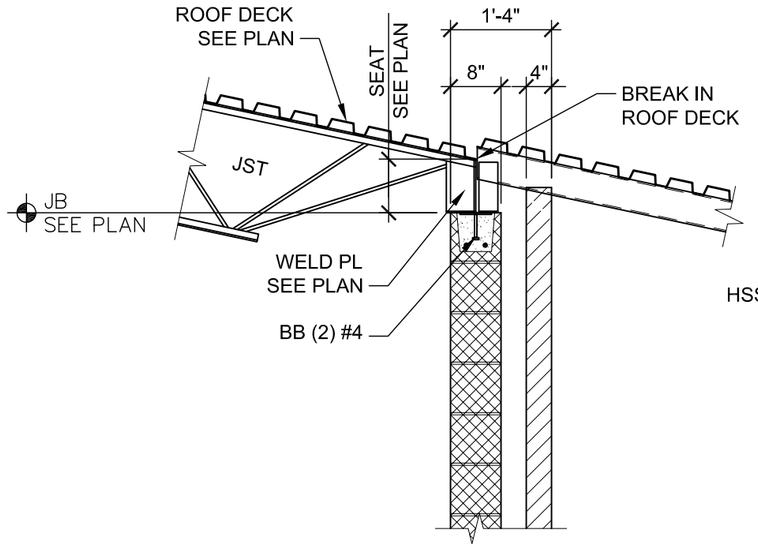
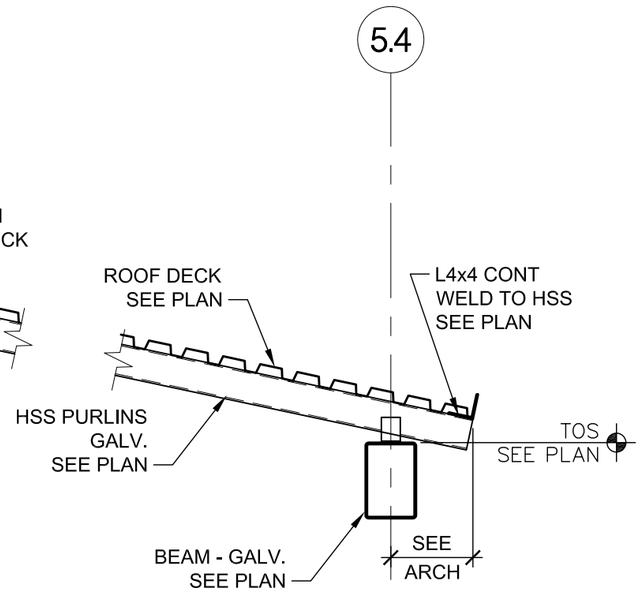


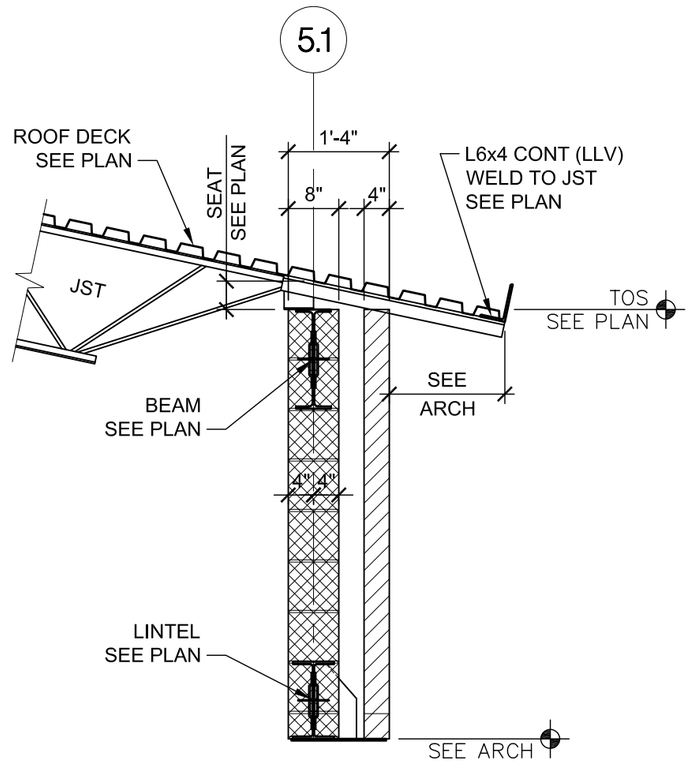
CANOPY ROOF SECTION

SCALE: 1/2" = 1'-0"

2

S528





ROOF SECTION

SCALE: 1/2" = 1'-0"

1

S528

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

ROOF SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF DWG. S528

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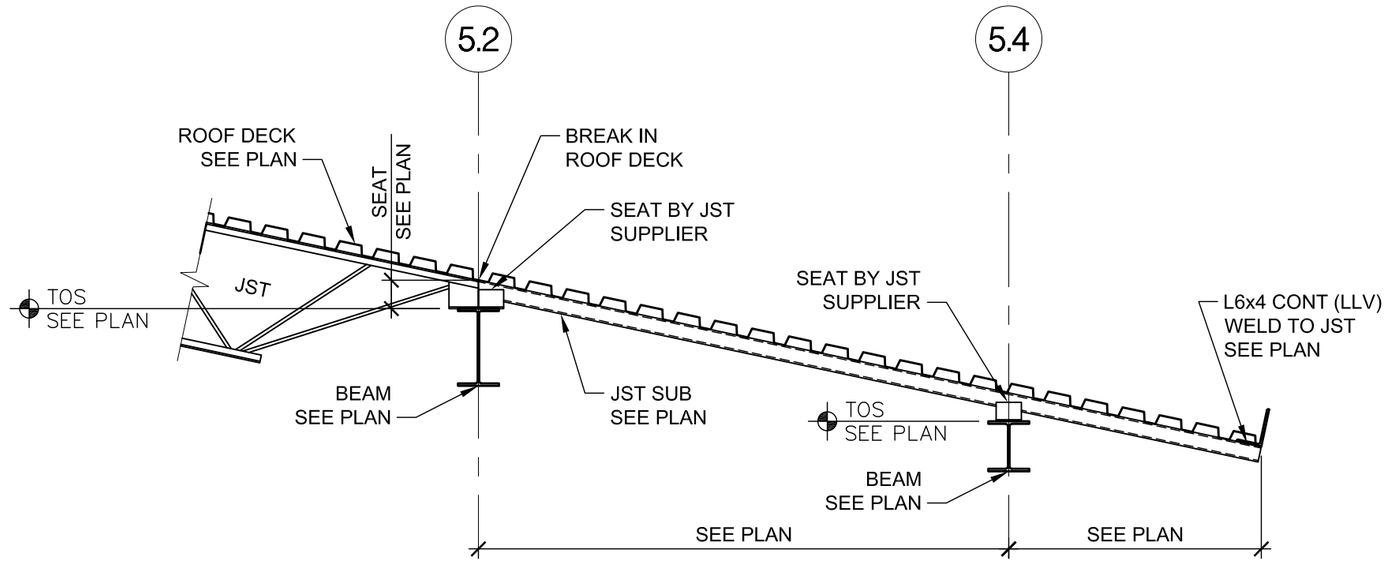


NOT USED

3

SCALE: 1/2" = 1'-0"

S529

ENTRY ROOF SECTION

2

SCALE: 1/2" = 1'-0"

S529

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

ROOF SECTIONS & DETAILS

DATE: 04/01/14

FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71

HWY: USH 2/ 53

COUNTY: DOUGLAS

SUPERIOR SAFETY & WEIGHT FACILITY NO. 72

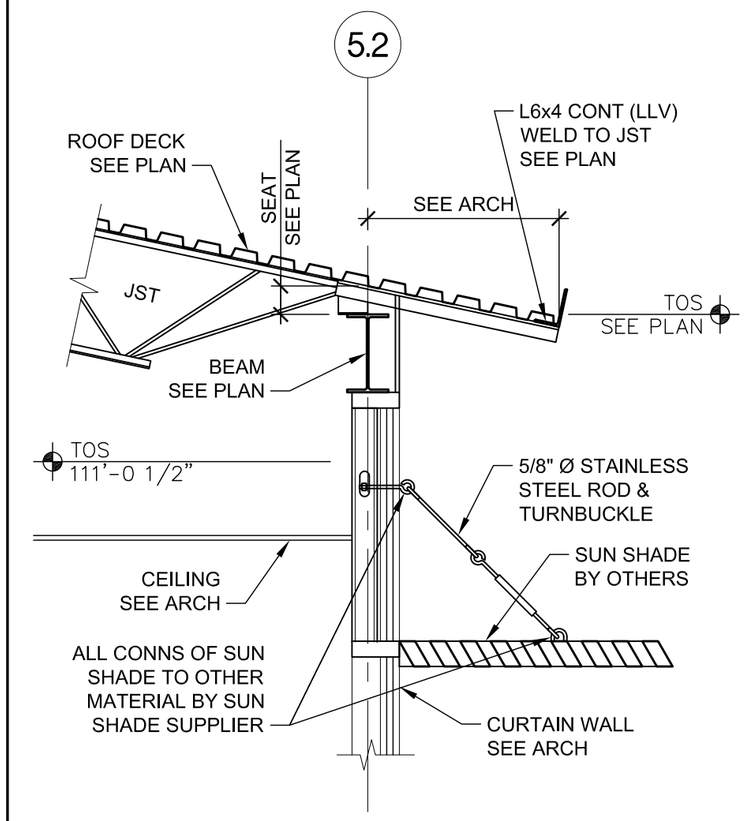
SCALE, FEET 0

SHEET NO:

OF

DWG.

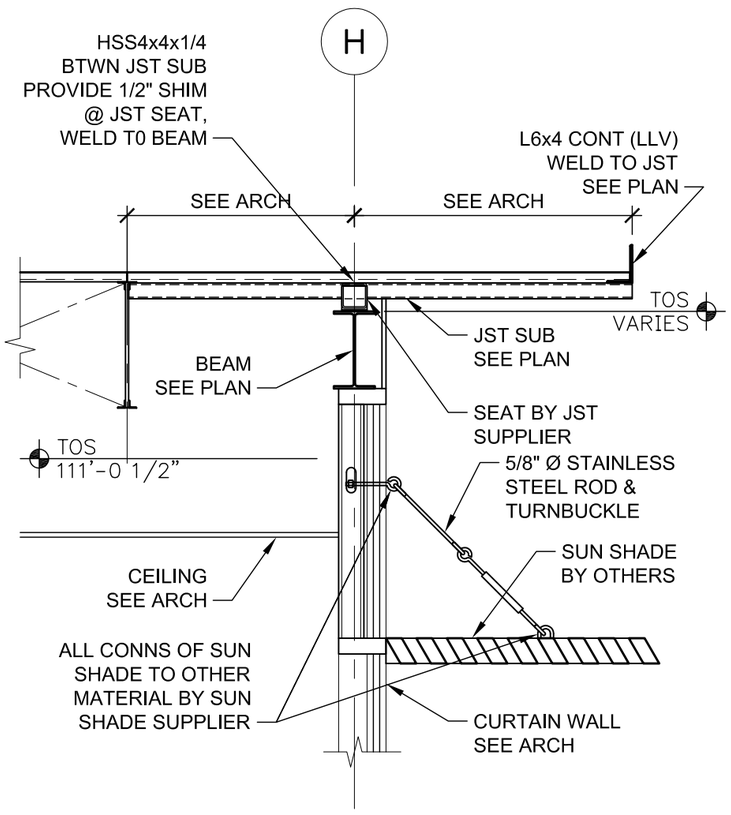
31 Mar 2014 - 3:41p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



NOT USED

3 S530

SCALE: 1/2" = 1'-0"



ROOF SECTION @ SHADE LOUVER

2 S530

SCALE: 1/2" = 1'-0"

ROOF SECTION @ SHADE LOUVER

1 S530

SCALE: 1/2" = 1'-0"

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

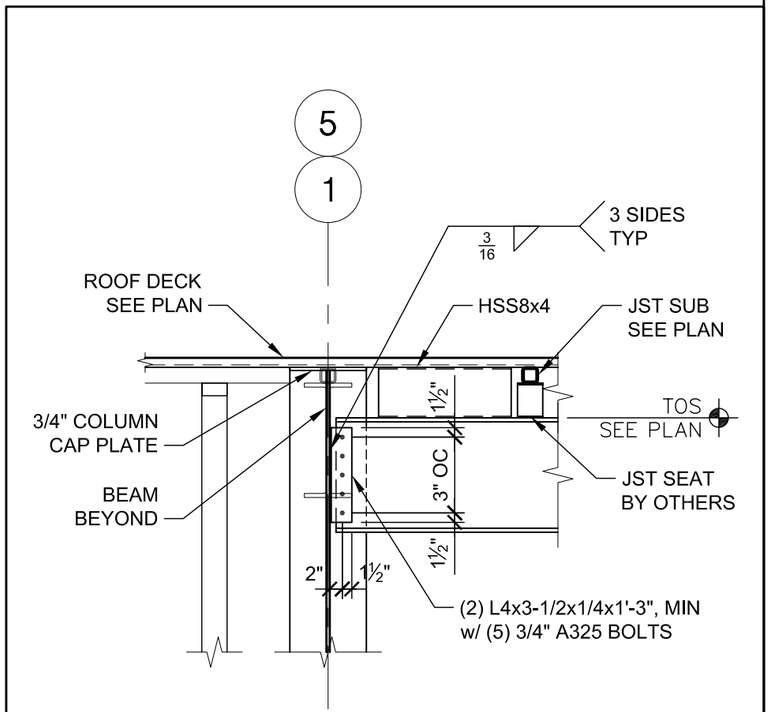
ROOF SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

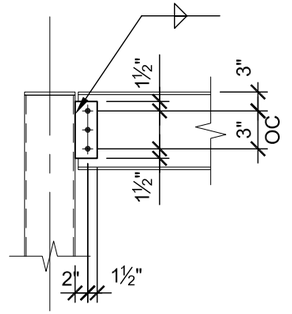
SHEET NO: OF DWG. S530

31 Mar 2014 - 3:41p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



BEAM TO HSS COLUMN CONNECTION SCHEDULE

	BEAM SIZE	BOLT DIA.	NO. OF BOLTS	CONN. LENGTH (MIN.)	CONN. WELD (MIN.)
SHEAR TAB	W8, W10	3/4"	(2)	6"	1/4
	W12	3/4"	(3)	9"	1/4
	W14, W16	3/4"	(4)	12"	1/4
	W18	3/4"	(5)	15"	1/4
	W21	3/4"	(6)	18"	1/4
	W24, W27	3/4"	(7)	21"	1/4



SHEAR TAB

BEAM TO COLUMN CONNECTION SCHEDULE NOTES:

1. BEAMS TO BEAR ON TOP OF COLUMNS SHOWN AS ( ) ON PLAN, TYPICAL UNLESS DETAILED OTHERWISE
2. BEAM-TO-COLUMN CONNECTIONS SHOWN AS (ON PLAN, TO BE SHEAR TAB CONNECTIONS AS NOTED ABOVE, UNLESS DETAILED OTHERWISE.
3. ALL CONNECTIONS TO BE DESIGNED PER AISC STEEL CONSTRUCTION MANUAL - THIRTEENTH EDITION

BEAM TO COLUMN WEB DETAIL

SCALE: 1/2" = 1'-0"

2

S531

BEAM TO HSS COLUMN CONN SCHEDULE

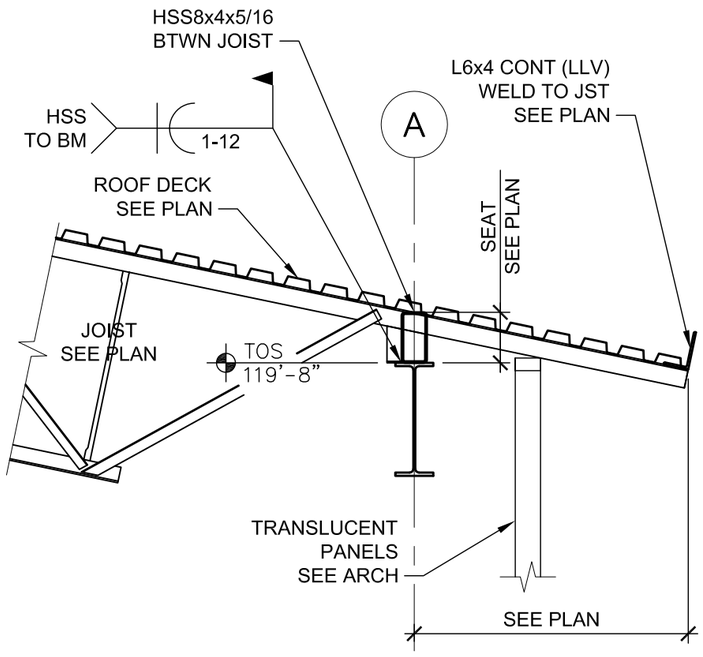
SCALE: 1/2" = 1'-0"

1

S531

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)			ROOF SECTIONS & DETAILS	DATE: 04/01/14	FINAL PS&E
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 72	SCALE, FEET 0	SHEET NO: OF / DWG. S531

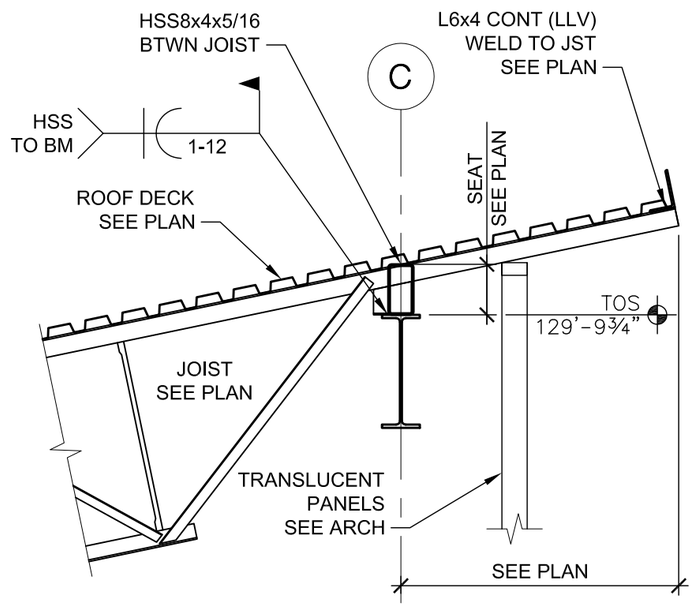
31 Mar 2014 - 3:41p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann



ROOF SECTION 3

SCALE: 1/2" = 1'-0"

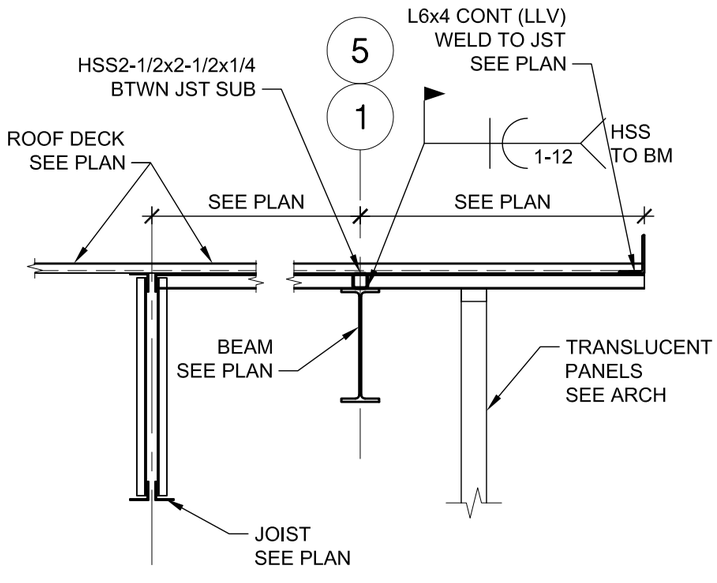
S532



ROOF SECTION 2

SCALE: 1/2" = 1'-0"

S532



ROOF SECTION 1

SCALE: 1/2" = 1'-0"

S532

PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

ROOF SECTIONS & DETAILS

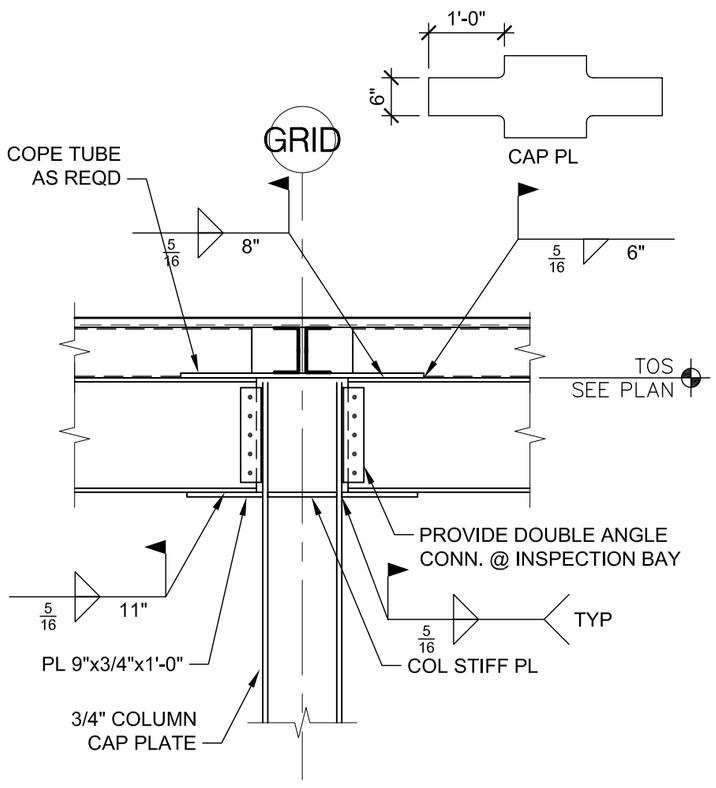
DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF | DWG.

31 Mar 2014 - 3:41p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg by: jzimmermann

by: jzimmermann
31 Mar 2014 - 3:40p S:\2008dwg\008-381 DOT Superior SWEF #71\008-381_Sections.dwg



NOT USED

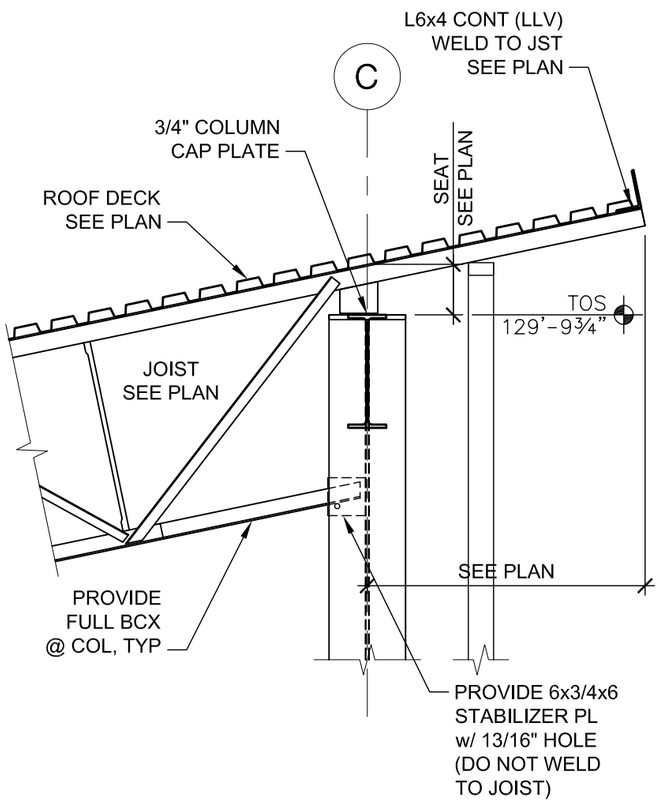
SCALE: 1/2" = 1'-0"

3 S533

MOMENT CONN

SCALE: 1/2" = 1'-0"

2 S533



ROOF SECTION

SCALE: 1/2" = 1'-0"

1 S533

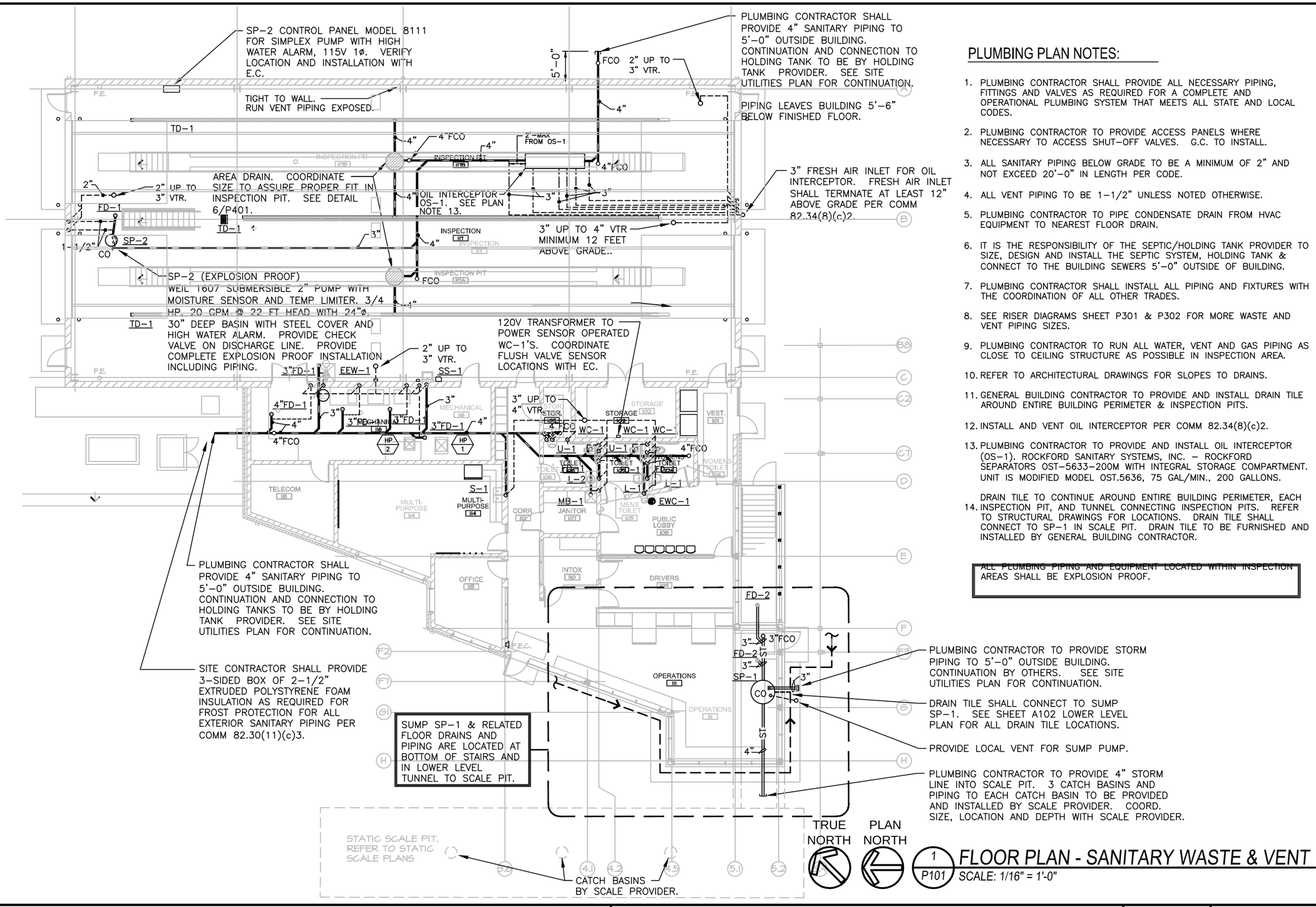
PREPARED BY: AMBROSE ENGINEERING, INC. CEDARBURG, WI (AEI# 008-381)

ROOF SECTIONS & DETAILS

DATE: 04/01/14 FINAL PS&E

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 72 | SCALE, FEET 0

SHEET NO: OF DWG. S533



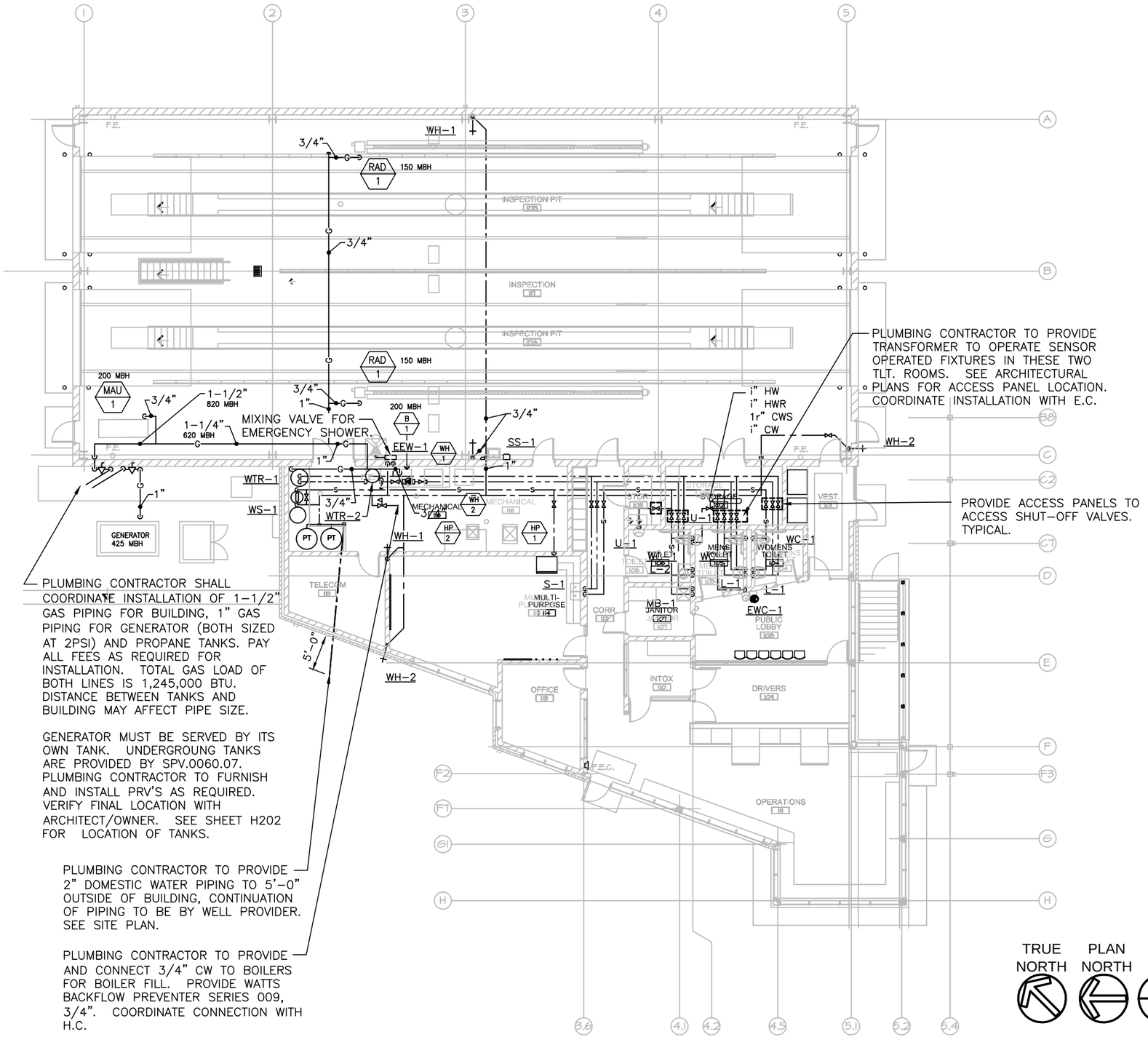
PLUMBING PLAN NOTES:

1. PLUMBING CONTRACTOR SHALL PROVIDE ALL NECESSARY PIPING, FITTINGS AND VALVES AS REQUIRED FOR A COMPLETE AND OPERATIONAL PLUMBING SYSTEM THAT MEETS ALL STATE AND LOCAL CODES.
2. PLUMBING CONTRACTOR TO PROVIDE ACCESS PANELS WHERE NECESSARY TO ACCESS SHUT-OFF VALVES. G.C. TO INSTALL.
3. ALL SANITARY PIPING BELOW GRADE TO BE A MINIMUM OF 2" AND NOT EXCEED 20'-0" IN LENGTH PER CODE.
4. ALL VENT PIPING TO BE 1-1/2" UNLESS NOTED OTHERWISE.
5. PLUMBING CONTRACTOR TO PIPE CONDENSATE DRAIN FROM HVAC EQUIPMENT TO NEAREST FLOOR DRAIN.
6. IT IS THE RESPONSIBILITY OF THE SEPTIC/HOLDING TANK PROVIDER TO SIZE, DESIGN AND INSTALL THE SEPTIC SYSTEM, HOLDING TANK & CONNECT TO THE BUILDING SEWERS 5'-0" OUTSIDE OF BUILDING.
7. PLUMBING CONTRACTOR SHALL INSTALL ALL PIPING AND FIXTURES WITH THE COORDINATION OF ALL OTHER TRADES.
8. SEE RISER DIAGRAMS SHEET P301 & P302 FOR MORE WASTE AND VENT PIPING SIZES.
9. PLUMBING CONTRACTOR TO RUN ALL WATER, VENT AND GAS PIPING AS CLOSE TO CEILING STRUCTURE AS POSSIBLE IN INSPECTION AREA.
10. REFER TO ARCHITECTURAL DRAWINGS FOR SLOPES TO DRAINS.
11. GENERAL BUILDING CONTRACTOR TO PROVIDE AND INSTALL DRAIN TILE AROUND ENTIRE BUILDING PERIMETER & INSPECTION PITS.
12. INSTALL AND VENT OIL INTERCEPTOR PER COMM 82.34(8)(c)2.
13. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL OIL INTERCEPTOR (OS-1). ROCKFORD SANITARY SYSTEMS, INC. – ROCKFORD SEPARATORS OST-5633-200M WITH INTEGRAL STORAGE COMPARTMENT. UNIT IS MODIFIED MODEL OST.5636, 75 GAL/MIN., 200 GALLONS.
14. DRAIN TILE TO CONTINUE AROUND ENTIRE BUILDING PERIMETER, EACH INSPECTION PIT, AND TUNNEL CONNECTING INSPECTION PITS. REFER TO STRUCTURAL DRAWINGS FOR LOCATIONS. DRAIN TILE SHALL CONNECT TO SP-1 IN SCALE PIT. DRAIN TILE TO BE FURNISHED AND INSTALLED BY GENERAL BUILDING CONTRACTOR.

ALL PLUMBING PIPING AND EQUIPMENT LOCATED WITHIN INSPECTION AREAS SHALL BE EXPLOSION PROOF.

1 / P101 FLOOR PLAN - SANITARY WASTE & VENT
SCALE: 1/16" = 1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR PLAN - SANITARY WASTE & VENT	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: P101 / DOT #



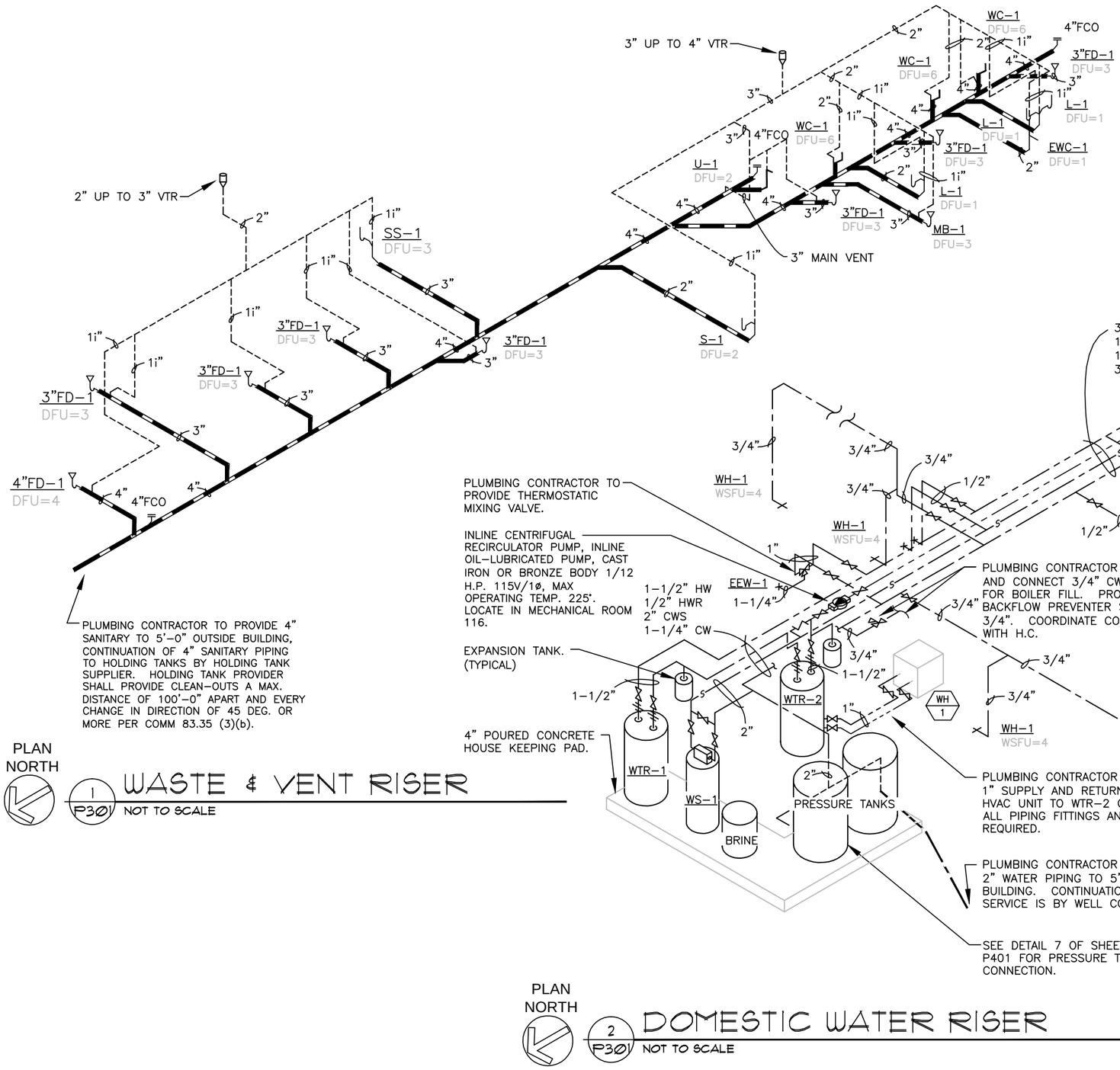
PLUMBING PLAN GENERAL NOTES:

1. PLUMBING CONTRACTOR SHALL PROVIDE ALL NECESSARY PIPING, FITTINGS AND VALVES AS REQUIRED FOR A COMPLETE AND OPERATIONAL PLUMBING SYSTEM THAT MEETS ALL STATE AND LOCAL CODES.
2. PLUMBING CONTRACTOR TO FURNISH ACCESS PANELS WHERE NECESSARY TO ACCESS SHUT-OFF VALVES. G.C. TO INSTALL
3. PLUMBING CONTRACTOR SHALL INSTALL ALL PIPING AND FIXTURES WITH THE COORDINATION OF ALL OTHER TRADES.
4. REFER TO RISER DIAGRAMS SHEET P301 FOR MORE WATER PIPE SIZES.
5. PLUMBING CONTRACTOR TO PROVIDE GAS SHUT-OFF VALVES AT ALL EQUIPMENT CONNECTIONS AND PRESSURE REGULATING VALVES AS REQUIRED. GAS PIPING IS SIZED AT 2 PSI. COORDINATE GAS CONNECTION LOCATIONS WITH HVAC CONTRACTOR.
6. PLUMBING CONTRACTOR TO FURNISH AND INSTALL ALL HVAC CONDENSATE PIPING. PIPE TO NEAREST FD-1.
7. PLUMBING CONTRACTOR TO RUN ALL WATER, VENT AND GAS PIPING AS TIGHT TO CEILING STRUCTURE AS POSSIBLE IN INSPECTION AREA. SEE ARCHITECTURAL SECTION 1/A301.

TRUE NORTH PLAN NORTH

1 / P102 FLOOR PLAN - DOMESTIC WATER

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR PLAN - DOMESTIC WATER		DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: P102	DOT #



PLAN NORTH

1 / P301 WASTE & VENT RISER

NOT TO SCALE

PLAN NORTH

2 / P301 DOMESTIC WATER RISER

NOT TO SCALE

PLUMBING PLAN NOTES:

1. PLUMBING CONTRACTOR SHALL PROVIDE ALL NECESSARY PIPING, FITTINGS AND VALVES AS REQUIRED FOR A COMPLETE AND OPERATIONAL PLUMBING SYSTEM THAT MEETS ALL STATE AND LOCAL CODES.
2. PLUMBING CONTRACTOR PROVIDE ACCESS PANELS WHERE NECESSARY TO ACCESS SHUT-OFF VALVES.
3. ALL SANITARY PIPING BELOW GRADE TO BE A MINIMUM OF 2" AND NOT EXCEED 20'-0" IN LENGTH PER CODE.
4. ALL VENT PIPING TO BE 1-1/2" UNLESS NOTED OTHERWISE.
5. PLUMBING CONTRACTOR TO PIPE CONDENSATE DRAIN FROM HVAC EQUIPMENT TO NEAREST FLOOR DRAIN.
6. IT IS THE RESPONSIBILITY OF THE SEPTIC/HOLDING TANK PROVIDER TO SIZE, DESIGN AND INSTALL THE SEPTIC SYSTEM, HOLDING TANK & CONNECT TO THE BUILDING SEWERS 5'-0" OUTSIDE OF BUILDING.
7. PLUMBING CONTRACTOR SHALL INSTALL ALL PIPING AND FIXTURES WITH THE COORDINATION OF ALL OTHER TRADES.
8. CONCRETE PAD FOR PRESSURE TANKS, WATER HEATER AND WATER SOFTENER EQUIPMENT BY GENERAL BUILDING CONTRACTOR

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			PLUMBING RISER DIAGRAMS	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: P301 / DOT #

PLUMBING PLAN NOTES:

1. PLUMBING CONTRACTOR SHALL PROVIDE ALL NECESSARY PIPING, FITTINGS AND VALVES AS REQUIRED FOR A COMPLETE AND OPERATIONAL PLUMBING SYSTEM THAT MEETS ALL STATE AND LOCAL CODES.
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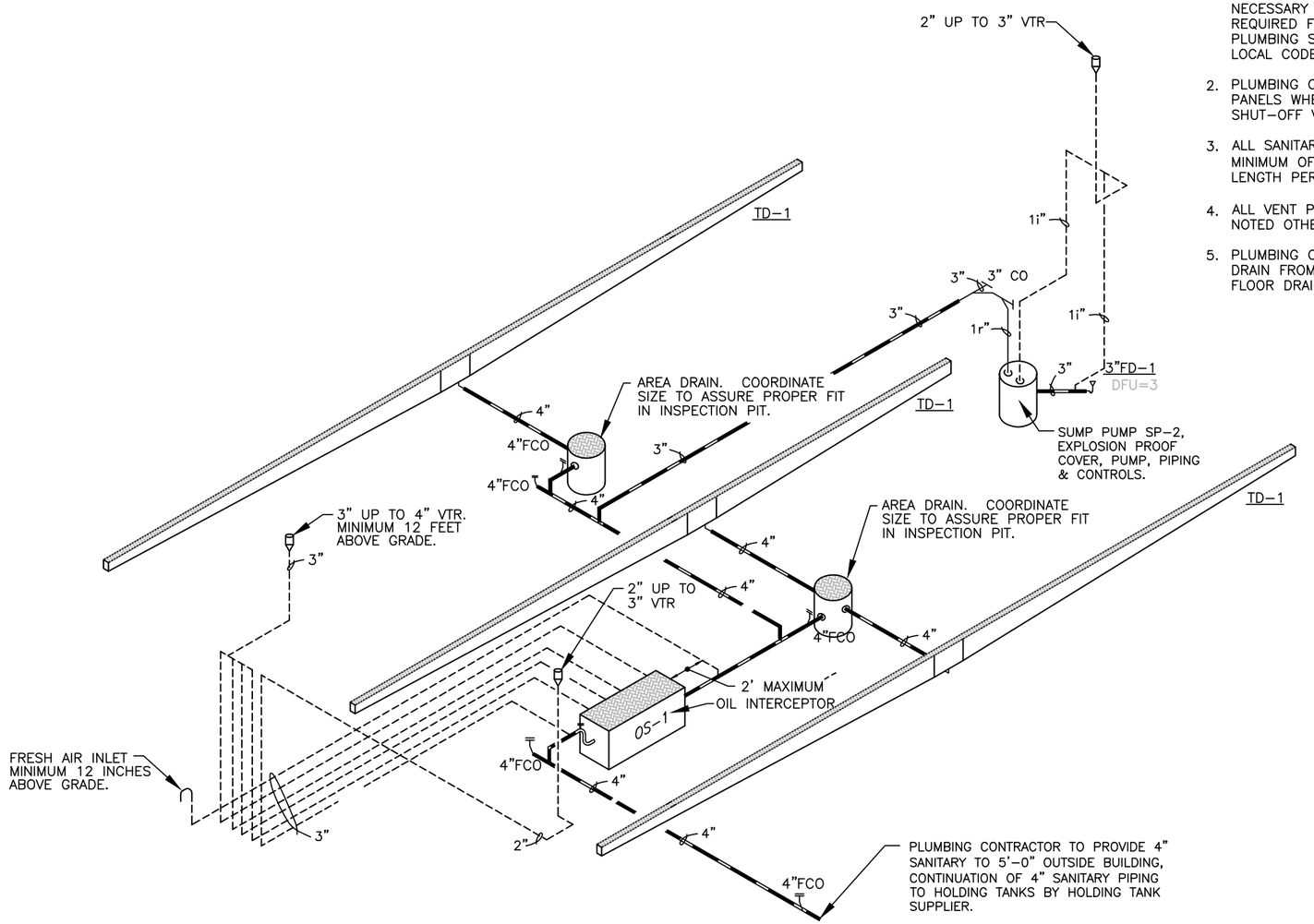
7. PLUMBING CONTRACTOR SHALL INSTALL ALL PIPING AND FIXTURES WITH THE COORDINATION OF ALL OTHER TRADES.
8. CONCRETE PAD FOR PRESSURE TANKS, WATER HEATER AND WATER SOFTENER EQUIPMENT BY GENERAL BUILDING CONTRACTOR

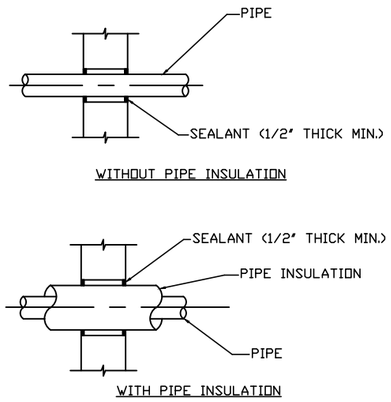


PLAN NORTH

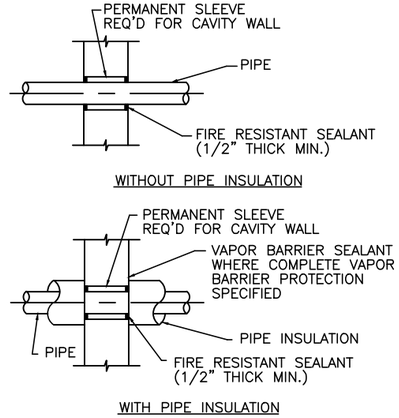
1/P302 NOT TO SCALE SIMILAR

WASTE & VENT RISER - INSPECTION BUILDING

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			PLUMBING RISER DIAGRAMS		DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: P302	DOT #

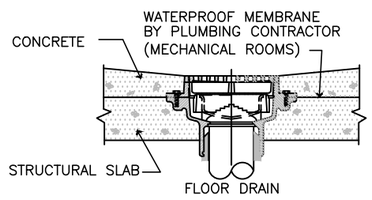


1 PIPE THRU NON-RATED INTERIOR WALL
NOT TO SCALE

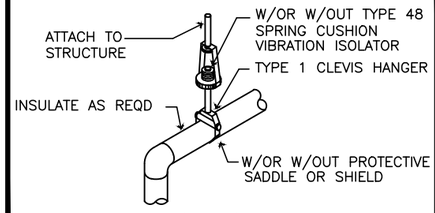


2 PIPE THRU FIRE-RATED INTERIOR WALL
NOT TO SCALE

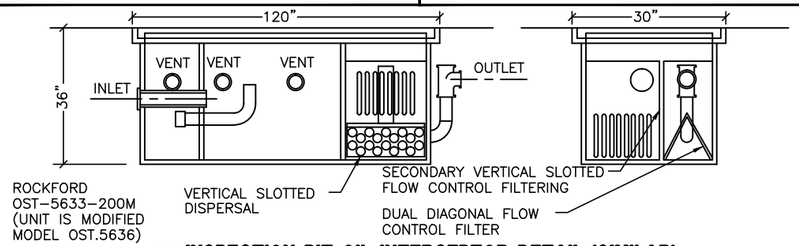
NOTE: FLOOR FINISH VARIES REFER TO ROOM FINISH SCHEDULE.



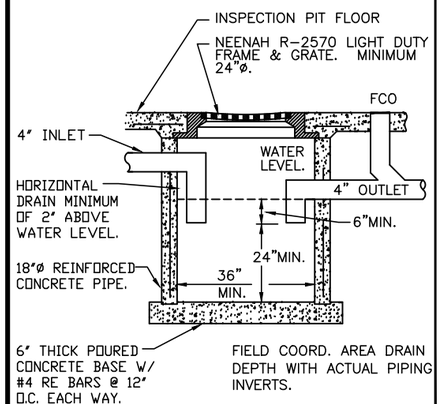
3 FLOOR DRAIN DETAIL
NOT TO SCALE



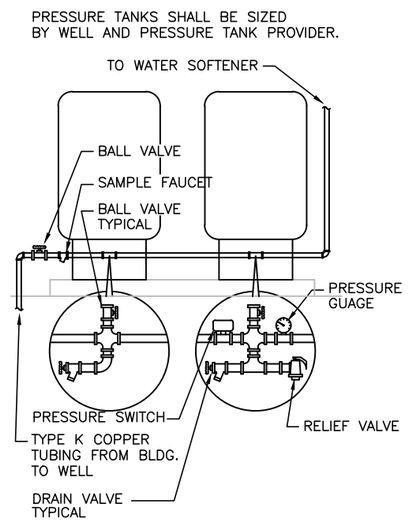
4 SINGLE PIPE CLEVIS HANGER
NOT TO SCALE



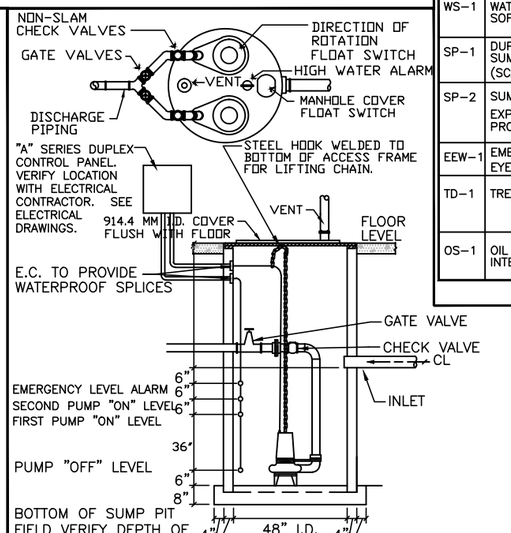
5 INSPECTION PIT OIL INTERCEPTOR DETAIL (SIMILAR)
NOT TO SCALE



6 INSPECTION PIT AREA DRAIN DETAIL
NOT TO SCALE



7 PRESSURE TANK CONNECTION DETAIL
NOT TO SCALE



8 DUPLEX SUMP PUMP DETAIL (SIMILAR)
NOT TO SCALE

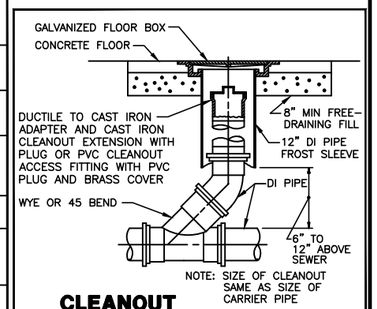
PLUMBING FIXTURES AND EQUIPMENT PROVIDED BY PLUMBING CONTRACTOR

P#	FIXTURE	WASTE	VENT	CW.	HW.	DESCRIPTION
WC-1	WATER CLOSET (FOR ADA)	4"	1½"	¾"	--	FLOOR MOUNTED WHITE VITREOUS CHINA SIPHON JET SENSER OPERATED WATER CLOSET WITH ELONGATED BOWL WITH RIM HEIGHT OF 16-1/2", OPEN FRONT SEAT WITHOUT COVER, 1-1/2" TOP SPUD AND 1.6 GALLON FLUSH.
UR-1	URINAL	2"	1½"	¾"	--	WALL MOUNTED WHITE VITREOUS CHINA WATERLESS URINAL. MOUNT FOR ADA ROUGH-IN ¾" CW SUPPLY.
L-1	LAVATORY	1½"	1½"	½"	½"	WALL MOUNTED BARRIER FREE WHITE VITREOUS CHINA LAVATORY DRILLED FOR CONCEALED ARM CARRIER WITH SENSER OPERATED FAUCET AND LEFT HAND SOAP DISPENSER WITH PERFORATED STRAINER AND 1-1/4" OFFSET TAILPIECE. PROVIDE ADA PVC JACKET COVERED INSUATION OVER ALL EXPOSED PIPING.
L-2	LAVATORY	1½"	1½"	½"	½"	LAV INTEGRAL WITH COUNTERTOP BY GENERAL CONTRACTOR. PLUMBING CONTRACTOR TO PROVIDE FAUCET WITH 4" CENTERS, WRISTBLADE HANDLES AND PERFORATED STRAINER AND 1-1/4" OFFSET TAILPIECE. PROVIDE ADA PVC JACKET COVERED INSUATION OVER ALL EXPOSED PIPING.
EWC-1	ELECTRIC WATER COOLER	2"	1½"	½"	--	BARRIER FREE, DUAL LEVEL WALL MOUNTED, STAINLESS STEEL FINISH ELECTRIC WATER COOLER WITH FRONT PUSH BAR OPERATORS AND OPTIONAL GLASS FILLER.
S-1	SINK	2"	1½"	½"	½"	COUNTER MOUNTED 18 GA. TYPE 304 STAINLESS STEEL DOUBLE COMPARTMENT SINK WITH 3 FAUCET HOLES, STAINLESS STEEL BASKET STRAINER AND CHICAGO FAUCET WITH WRISTBLADE HANDLES AND SWING SPOUT. PROVIDE 3/4HP DISPOSER.
SS-1	SERVICE SINK	3"	1½"	¾"	¾"	WALL MOUNTED ENAMELED CAST IRON SERVICE SINK WITH STAINLESS STEEL RIM GUARD AND WALL HANGER SUPPORTS. GENERAL CONTRACTOR TO PROVIDE 6" CONCRETE HOUSEKEEPING PAD BELOW FLOOR SUPPORT TO ELEVATE RIM 6". SEAL PERIMETER TO FLOOR AND WALL.
FD-1	FLOOR DRAIN	2"	2"	--	--	3" ENAMELED CAST IRON 2-PIECE BODY FLOOR DRAIN WITH DOUBLE DRAINAGE FLANGE, WEEP HOLES, REVERSIBLE CLAMPING ADJUSTABLE COLLAR, SQUARE POLISHED NICKLE-BRONZE STRAINER WITH THREADED COLLAR.
FD-2	FLOOR DRAIN	4"	2"	--	--	4" CAST IRON BODY SANI-FLOR RECEPTOR 8x8x6 WITH WHITE ACID RESISTANT PORCELAIN ENAMEL INTERIOR AND TOP, WITH ALUMINUM ANTI-SPLASH INTERIOR BOTTOM DOME STRAINER.
MB-1	MOP BASIN	3"	1½"	½"	½"	FLOOR MOUNTED PRECAST TERRAZZO MOP BASIN, 24"x24", WITH STAINLESS STEEL STRAINER AND STAINLESS STEEL CURB CAPS.
WH-1	WALL HYDRANT	--	--	¾"	--	FREEZEPROOF AUTOMATIC DRAINING WALL HYDRANT WITH EXPOSED CHROME PLATED BRONZE WALL PLATE, HOSE THREAD BACKFLOW PREVENTER LOOSE KEY OPERATOR.
WH-2	WALL HYDRANT	--	--	¾"	--	FREEZEPROOF AUTOMATIC DRAINING WALL HYDRANT IN FLUSH MOUNTED CAST BRASS WALL BOX WITH LOCKING DOOR, LOOSE KEY OPERATOR, POLISHED BRASS FINISH.
WTR-1	WATER HEATER	--	--	1½"	1½"	COMMERCIAL GAS WATER HEATER 60 GALLON STORAGE, 120,000 BTUH INPUT WITH 171 GALLON RECOVERY @ 80° RISE. PROVIDE 2.1 GALLON EXPANSION TANK.
WTR-2	WATER HEATER INDIRECT GEOTHERMAL	--	--	1½"	1½"	INDIRECT WATER HEATER CONNECTED TO GEOTHREMAL SYSTEM. COORDINATE PIPING FROM GEOTHERMAL SYSTEM WITH HVAC CONTRACTOR. 1" CONNECTIONS TO COIL, 1-¼" DOMESTIC INLET/OUTLET, 80 GALLON STORAGE. PROVIDE 2.1 GAL. EXPANSION TANK. MOUNTED ON 4" POURED CONCRETE HOUSE KEEPING PAD.
WS-1	WATER SOFTNER	--	--	2"	--	SINGLE UNIT SOFTENERS 16"x65" 2" WATER CONNECTION, 76,000 GRAINS @ 24 LBS, CONTINUOUS FLOW OF 47 GPM @ 15 PSI, PEAK FLOW OF 64 GPM @ 25 PSI. WITH 24"x41" BRINE TANK.
SP-1	DUPLEX SUMP PUMP (SCALE PIT)	3"	1½"	--	--	(2) SUBMERSIBLE SEWAGE PUMPS WITH 3" DISCHARGE, CAST IRON OR BRONZE IMPELLER DOUBLE TANDEM SEAL 100 GPM @ 35 FEET OF HEAD, 3 HP, 1150 RPM, 208-230/1ø. 84" DEEP BASIN, FIELD VERIFY.
SP-2	SUMP PUMP EXPLOSION PROOF	2"	1½"	--	--	SUBMERSIBLE SUMP PUMP WITH 2" DISCHARGE, CAST IRON OR BRONZE IMPELLER 20 GPM @ 22 FEET OF HEAD, 3/4 HP, 1750 RPM, 115V, 1ø. 36" DEEP BASIN, FIELD VERIFY. EXPLOSION PROOF COVER, PUMP, PIPING & CONTROLS.
EEW-1	EMERGENCY EYE WASH	--	--	1"	1"	EMERGENCY EYE WASH AND SHOWER EQUAL TO BRADLEY S19-310. PROVIDE THERMOSTATIC MIXING VALVE AS REQUIRED BY CODE.
TD-1	TRENCH DRAIN	4"	2"	--	--	MODULAR PRECAST POLYMER CONCRETE, CAST IRON OR POLYESTER FIBERGLASS TRENCH SECTIONS WITH PRESLOPED 4" WIDE RADIUSED INTERIOR WATERWAYS, CAST IRON FRAME, EXTRA HEAVY DUTY STAINLESS STEEL GRATE WITH S.S. GRATE HOLDOWNS.
OS-1	OIL INTERCEPTOR	4"	SEE PLAN	--	--	ROCKFORD SEPARATORS OST-5633-200M WITH INTEGRAL STORAGE COMPARTMENT. UNIT IS MODEL OST.5636 MODIFIED, 75 GAL/MIN., 200 GALLONS. WITH LEAK DETECTION AND HIGH LEVEL SENSOR AND ALARM.

PLUMBING SYMBOL SCHEDULE

SYMBOL	DESCRIPTION
	WASTE BELOW SLAB
ST	ABOVE GRADE STORM PIPING
ST	BELOW GRADE STORM PIPING
	WASTE ABOVE SLAB
W	WATER SERVICE
	COLD WATER SUPPLY
	HOT WATER SUPPLY
	HOT WATER RECIRCULATION
	VENT
G	GAS LINE
	PIPE UP
	PIPE DOWN
	CLEAN OUT
	BALL VALVE
	CHECK VALVE
	UNION
	GAS VALVE

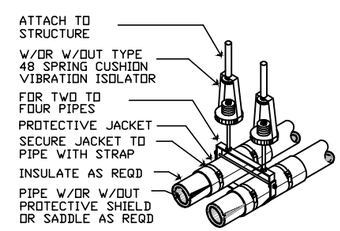
FCO	FLOOR CLEAN OUT
YCO	YARD CLEAN OUT
VTR	VENT THROUGH ROOF
FD	FLOOR DRAIN
OSD	OPEN SITE DRAIN
GC	GENERAL CONTRACTOR
PC	PLUMBING CONTRACTOR
HC	HVAC CONTRACTOR
CW	DOMESTIC COLD WATER
HWS	DOMESTIC HOT WATER SOFT
CWS	DOMESTIC COLD WATER SOFT
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
GC	GENERAL CONTRACTOR
PC	PLUMBING CONTRACTOR
HC	HVAC CONTRACTOR
EC	ELECTRICAL CONTRACTOR



10 CLEANOUT W/FROST SLEEVE
NOT TO SCALE

DUPLEX SUMP PUMP DETAIL NOTES:

1. (2) HYDROMATIC SUBMERSIBLE PUMPS. SEE FIXTURE SCHEDULE FOR SIZES AND CAPACITIES.
2. DUPLEX CONTROL PANEL: NEMA 1; REMOTE MOUNTED; P.C. TO PROVIDE. COORDINATE WITH ELECTRICAL CONTRACTOR.
3. HIGH WATER ALARM TO BE CONNECTED TO BUILDING FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR.
4. (4) SUSPENDED FLOAT SWITCHES WITH RELAYS & CABLES, LENGTH AS REQUIRED PER MANUFACTURERS RECOMMENDATION.
5. (1) DUPLEX BASIN COVER ASSEMBLY, 3/8" THICK FLUSH MOUNTEDTREAD PLATE STEEL ACCESS LIDS (BITUMASTIC COATING ON BOTTOM) AND SECURING BOLTS. 'L' BRACKETS FOR SUSPENDING FLOAT SWITCHES.
6. BASIN WALL SHALL BE MINIMUM 4' THICK POURED CONCRETE OR PRECAST SECTIONS. BASE SHALL BE POURED CONCRETE WITH #4 RE-BARS AT 12" O.C. EACH WAY. ENTIRE BASIN SHALL BE COMPLETELY WATERPROOFED.
7. RUN VENT AS TIGHT TO WALL AS POSSIBLE.



9 MULTIPLE PIPE CLEVIS HANGER
NOT TO SCALE

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			PLUMBING SCHEDULES & DETAILS	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: P401 / DOT # 176

HVAC SYMBOL SCHEDULE

SYMBOL	DESCRIPTION
	SQUARE/RECTANGULAR SUPPLY DIFFUSER, GRILLE OR REGISTER-HORIZONTAL MOUNT
	SQUARE/RECTANGULAR RETURN/EXHAUST REGISTER OR GRILLE-HORIZONTAL MOUNT
	SUPPLY REGISTER OR GRILLE VERT. MOUNT
	RETURN/EXHAUST REGISTER OR GRILLE VERT. MOUNT
	VERTICAL SUPPLY DUCT UP
	VERTICAL RETURN/EXHAUST DUCT UP
	VERTICAL SUPPLY DUCT DOWN
	VERTICAL RETURN/EXHAUST DUCT DOWN
	VOLUME DAMPER
SD	SMOKE DAMPER
FD	FIRE DAMPER
MD	MOTORIZED DAMPER
BD	GRAVITY BACKDRAFT DAMPER
	FLEXIBLE CONNECTION
	ROUND/FLEXIBLE DUCT
	ROUND RIGID DUCT
	SQUARE ELBOW W/TURNING VANES
	RADIUS ELBOW,R/D = 1.5
	RADIUS TAKEOFF R/D = 1.5 "X"=TAKE-OFF WIDTH
	DUCT RISE(R) OR DROP(D)
A / 100	DIFFUSER/REGISTER/GRILLE TYPE / CFM
XXX	EXHAUST CFM
	EQUIPMENT SYMBOL NO.
	SUPPLY REGISTER OR GRILLE VERT. MOUNT
	RETURN/EXHAUST REGISTER OR GRILLE VERT. MOUNT
	TRANSITION
T	THERMOSTAT
P	DUCT STATIC PRESSURE STATION
	CONNECT TO EXIST

EQUIPMENT SYMBOLS

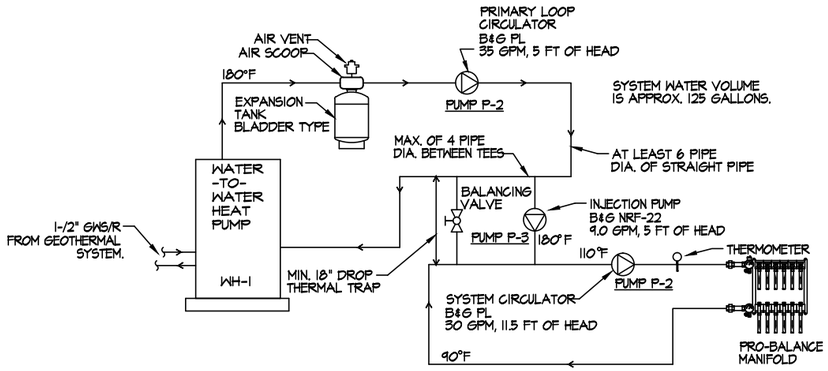
AS	AIR SEPARATOR
B	BOILER
BFP	BACK FLOW PREVENTER
CD	CEILING DIFFUSER
EF	EXHAUST FAN
ET	EXPANSION TANK
HP	HEAT PUMP
L	LOUVER
P	PUMP
PRV	PRESSURE REDUCING VALVE
TG	TRANSFER GRILLE

HVAC SYMBOL SCHEDULE

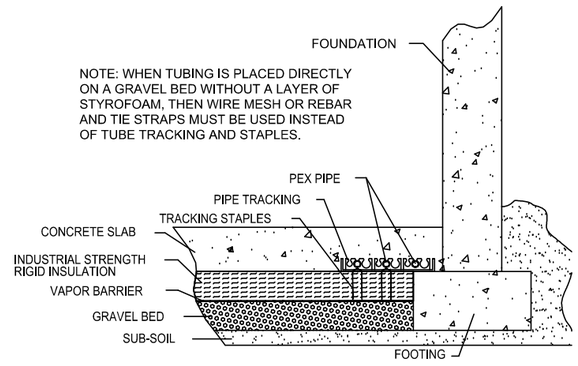
SYMBOL	DESCRIPTION
	PIPING
HWS	HOT WATER SUPPLY PIPING
HWR	HOT WATER RETURN PIPING
C	CONDENSATE PIPING
	PIPE UP
	PIPE DOWN
	GATE VALVE
	GLOBE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	ANGLE VALVE
	PRESSURE RELIEF VALVE
	DRAIN VALVE
	PRESSURE REDUCING VALVE
	TWO WAY TEMP CONTROL VALVE
	THREE WAY TEMP CONTROL VALVE
	TRIPLE DUTY VALVE
	BALANCE VALVE
	CALIBRATED BALANCING VALVE
	GAUGE VALVE
	AUTOMATIC CONTROL VALVE
	FLOW METER
	INLINE STRAINER
	UNION
	FLANGE
E	END CAP OR BLIND FLANGE
	THERMOMETER
	PIPING
	PRESSURE GAUGE
	GAS COCK
	FLEXIBLE CONNECTION
	ANCHOR
	T & P TEST WELL
	MANUAL AIR VENT
	VACUUM BREAKER
	REDUCER, CONCENTRIC
	REDUCER, ECCENTRIC
	IMMERSION WELL

ABBREVIATIONS

ACD	AUTOMATIC CONTROL DAMPER
CA	COMBUSTION AIR
EA	EXHAUST AIR
FA	FRESH AIR
RA	RETURN AIR
SA	SUPPLY AIR
AFF	ABOVE FINISHED FLOOR
BOD	BOTTOM OF DUCT
OED	OPEN END DUCT
Ø	ROUND DUCT DIAMETER
M	MOTORIZED DAMPER & OPERATOR
UC	UNDERCUT DOOR
FD	FIRE DAMPER



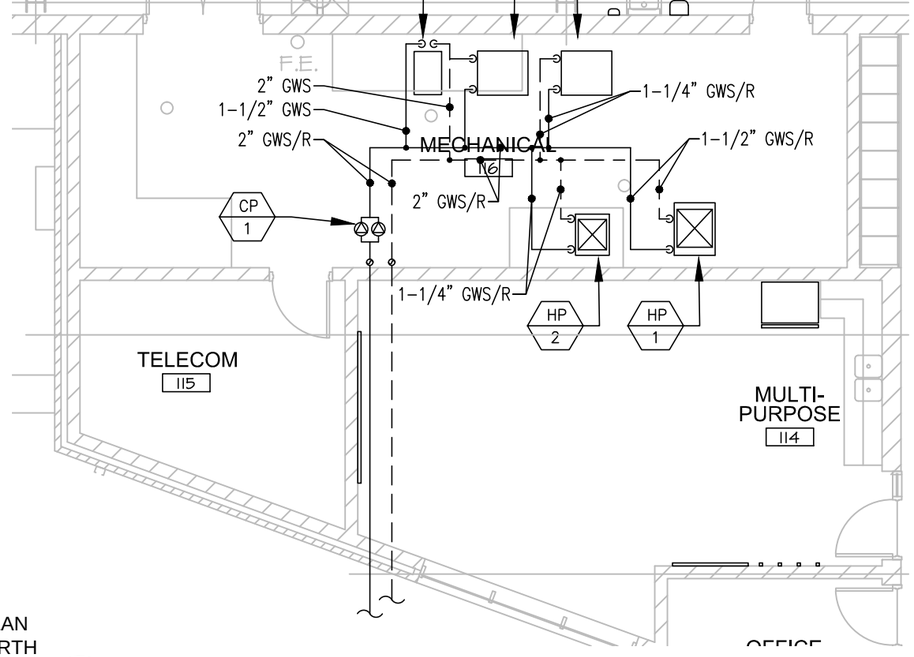
4 BOILER SCHEMATIC - INJECTION SYSTEM
NOT TO SCALE



5 "WET" INSTALLATION FOR SLAB ON GRADE TYPICAL DETAIL
NOT TO SCALE

1 / H001 INFLOOR RADIANT HEATING DETAILS

SCALE: N.T.S.



TRUE NORTH

PLAN NORTH

2 / H001 ENLARGED FLOOR PLAN - GEOTHERMAL - MECHANICAL ROOM

SCALE: 1/8" = 1'-0"

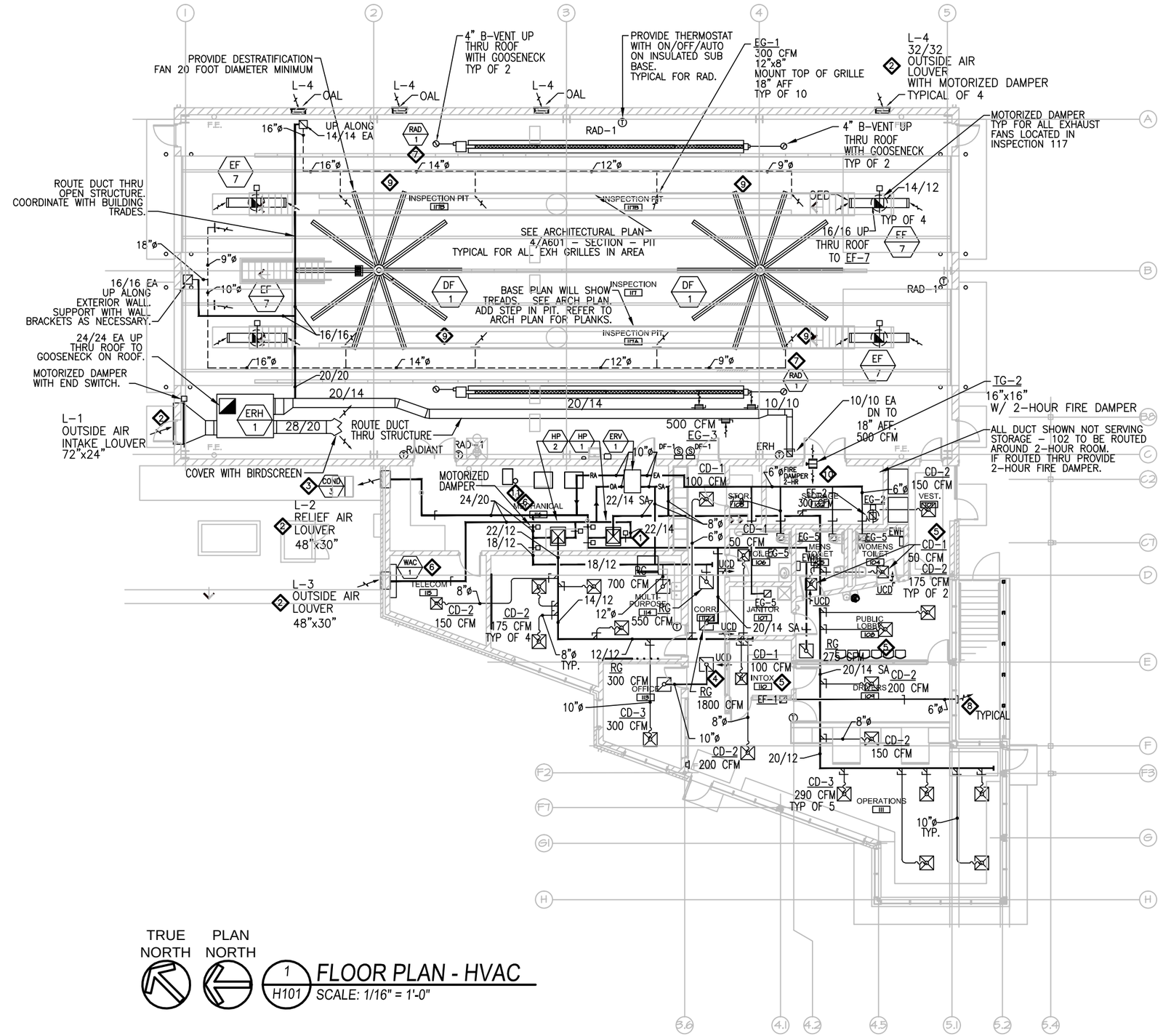
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR PLAN - GEOTHERMAL & HVAC LEGEND	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET	SHEET NO: H001 / DOT #

HVAC PLAN KEYED NOTES:

1. HVAC CONTRACTOR TO PROVIDE ECONOMIZER SECTIONS WITH OUTSIDE/RETURN AIR DAMPERS AND OPERATORS ALONG WITH VOLUME DAMPER FOR EACH HEAT PUMP.
2. PROVIDE INTAKE AND EXHAUST LOUVERS SIMILAR TO GREENHECK TYPE.
3. HVAC CONTRACTOR TO PROVIDE MOUNTING PAD FOR AIR COOLED CONDENSING UNIT. SEE MANUFACTURERS RECOMMENDATION OF SIZE.
4. TYPICAL TRANSFER DUCTS TO BE 14/12 LINED DUCTWORK. UNLESS OTHERWISE NOTED.
5. CEILING DIFFUSER TO BE STEEL CONSTRUCTION AND VANDAL RESISTANT. SEE GRILLE SCHEDULE.
6. ROUTE CONDENSATE FROM UNIT TO MECH ROOM FLOOR DRAIN.
7. PROVIDE LP GAS–FIRED RADIANT HEATERS WITH THERMOSTAT AND ACCESSORIES COMPLETE. LOCATE RADIANT HEATERS OVER TRENCH DRAIN AS A REFERENCE POINT.
8. PROVIDE BRICK EXHAUST VENT TO MATCH SIZE OF BRICKS. COLOR TO BE SELECTED BY ARCHITECT.
9. UNDERGROUND EXHAUST DUCT TO BE PVC DUCTWORK. PROVIDE ALL ACCESSORIES AND SEALING OF DUCT CAPABLE OF THIS PRESSURE CLASSIFICATION.
10. ALL DUCT ROUTED OVER STORAGE ROOM SHALL RUN OVER TOP OF RATED ENCLOSURE. IF DUCTS PASS THROUGH WALL THEN 2–HOUR FIRE DAMPER SHALL BE INSTALLED WITH ACCESS DOOR.
11. BOILER EXHAUST, MAINTAIN SEPARATION FROM INTAKE/EXHAUST. INSTALL PER MANUF. RECOMMENDATIONS.

HVAC PLAN NOTES:

1. HVAC CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING HVAC EQUIPMENT, ACCESSORIES SHOWN ON PLANS AND NOT SHOWN FOR A COMPLETE SYSTEM.
2. HVAC CONTRACTOR TO PROVIDE COMB. AIR AND VENT FOR BOILER. ROUTE THRU WALL/ROOF AND PROVIDE NECESSARY WEATHERPROOF SEALING THRU WALL.
3. HVAC CONTRACTOR TO PROVIDE MOTORIZED DAMPER OPERATOR FOR OUTSIDE AIR. DAMPER TO BE TIED IN WITH FURNACE SO THAT WHEN FURNACE IS OPERATING THE DAMPER SHALL BE OPEN. THE THERMOSTAT SHOWN IS BASED ON A HONEYWELL T8600 SERIES WITH CONTACTS TO CONTROL DAMPER OPERATORS.
4. THE LAYOUT OF DUCT IS ONLY FOR SCHEMATIC PURPOSES. HVAC CONTRACTOR TO COORDINATE CLEARANCES WITH BUILDING TRADES AND STRUCTURE. MINIMAL AMOUNT OF DUCT TRANSITIONS SHOULD BE MAINTAINED WHERE APPLICABLE.
5. HVAC CONTRACTOR TO COORDINATE GRILLES, REGISTER, AND DIFFUSERS WITH CEILING FINISH SCHEDULE.
6. ALL GAS FIRED HVAC EQUIPMENT SHALL BE SETUP FOR LP GAS.
7. HVAC CONTRACTOR TO COORDINATE EQUIPMENT SUCH AS BUT NOT LIMITED TO RADIANT HEATERS, MAKE–UP AIR UNIT AND EXHAUST SYSTEMS IN INSPECTION AREA WITH BUILDING TRADES. REFER TO REFLECTED CEILING PLAN.
8. HVAC CONTRACTOR TO COORDINATE MECHANICAL ROOM EQUIPMENT WITH BUILDING TRADES INCLUDING BUT NOT LIMITED TO SCALE EQUIPMENT, TRANSFORMERS, ETC.
6. HVAC CONTRACTOR TO PROVIDE ADDITIONAL SUPPORTING OF VENTS FOR MAU–1, RAD–1, AND BOILER B–1 DUE TO SNOW LOAD FROM SLOPED ROOF.
7. EXHAUST FAN EF–7 SHALL BE TIED IN WITH OUTSIDE AIR LOUVER WITH DAMPER OPERATOR AND AN NO2 (NITROGEN DIOXIDE) SENSOR PROVIDED BY HVAC CONTRACTOR. THIS NO2 SENSOR SHALL BE FIELD ADJUSTABLE AND HAVE A REMOTE ADJUSTMENT LOCATED BY BOILER ROOM DOOR. AN END SWITCH ON THE OUTSIDE AIR DAMPER OPERATOR SHALL PROVE BEFORE EF–7 SHALL CYCLE ON.



TRUE NORTH PLAN NORTH

1 / H101 **FLOOR PLAN - HVAC**

SCALE: 1/16" = 1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR PLAN - HVAC		DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: H101	DOT #

HVAC RADIANT PIPING PLAN NOTES:

1. HVAC CONTRACTOR IS TO PROVIDE AN IN-FLOOR RADIANT PIPING SYSTEM. INSTALL PER MANUFACTURERS RECOMMENDATIONS AND INSTALLATION GUIDELINES.
2. RADIANT PIPING SYSTEM IS COMPRISED OF TWO HOT WATER BOILERS WITH ONE PRIMARY LOOP CIRCULATING PUMP (P-1), A SYSTEM CIRCULATING PUMP (P-2), AND A INJECTION PUMP (P-3). TWO MANIFOLDS WITH 10 CIRCUTIS FOR EACH MANIFOLD. THE RADIANT PIPE IS TO BE A PEXa TYPE POLYETHYLENE TUBING. THERE IS AS SHOWN ON THE PLAN (16) RADIANT CIRCUITS. THE CIRCUITS SHOULD BE LAID OUT ON 12" CENTERS. SEE DETAILS THIS SHEET FOR IN FLOOR DIRECTIONS.
3. THE RADIANT FLOOR PIPING SYSTEM HAS BEEN LAID OUT BASED ON THE MANUFACTURER "REHAU". HVAC CONTRACTOR TO PROVIDE PER REHAU MANUFACTURERS INSTALLATION INSTRUCTIONS OR PER APPROVED EQUAL.
4. THE RADIANT FLOOR PIPING SHALL BE ONLY 200 FEET PER CIRCUIT. HVAC CONTRACTOR TO PROVIDE THE PIPE MANIFOLD TO COVER ALL CIRCUITS WITH PROVISIONS FOR 4 ADDITIONAL CIRCUITS FOR FUTURE.
5. PIPE SHALL BE KEPT 6" FROM ALL WALLS.
6. SYSTEM SHALL BE PRESSURE TESTED TO A MINIMUM OF 80 PSI FOR A MINIMUM DURATION OF 2 HOURS.
7. THE INSTALLING CONTRACTOR SHALL RECORD ACTUAL INSTALLED CIRCUIT LENGTHS FOR BALANCING PURPOSES.
8. THIS DRAWING SHALL ACT AS AN INSTALLATION GUIDE ONLY. DO NOT SCALE DRAWING.
9. CONSULT THE REHAU "RAUPEX RADIANT FLOOR HEATING SYSTEMS INSTALLATION GUIDE" FOR COMPLETE INSTALLATION GUIDELINES.
10. UNDER SLAB INSULATION TO BE INDUSTRIAL STRENGTH RIGID INSULATION. SEE DIVISION 7 SECTION "BUILDING INSULATION".
11. IN-FLOOR RADIATION SYSTEM TO HAVE 15% GLYCOL ADDED INTO THE SYSTEM. ALL PUMPS AND RELATED ACCESSORIES ARE TO BE CAPABLE OF ACCEPTING GLYCOL.

MANIFOLD 'A'	LENGTH	SPACING	AS-BUILT	COVERAGE ZONE
CIRCUIT 1	269'	12"		1 - 1 / 2
CIRCUIT 2	269'	12"		1 - 1 / 2
CIRCUIT 3	276'	12"		1 - 3 / 4
CIRCUIT 4	276'	12"		1 - 3 / 4
CIRCUIT 5	220'	12"		1 - 5
CIRCUIT 6	221'	12"		1 - 6

MANIFOLD 'B'	LENGTH	SPACING	AS-BUILT	COVERAGE ZONE
CIRCUIT 1	143'	12"		1 - 7
CIRCUIT 2	159'	12"		1 - 8

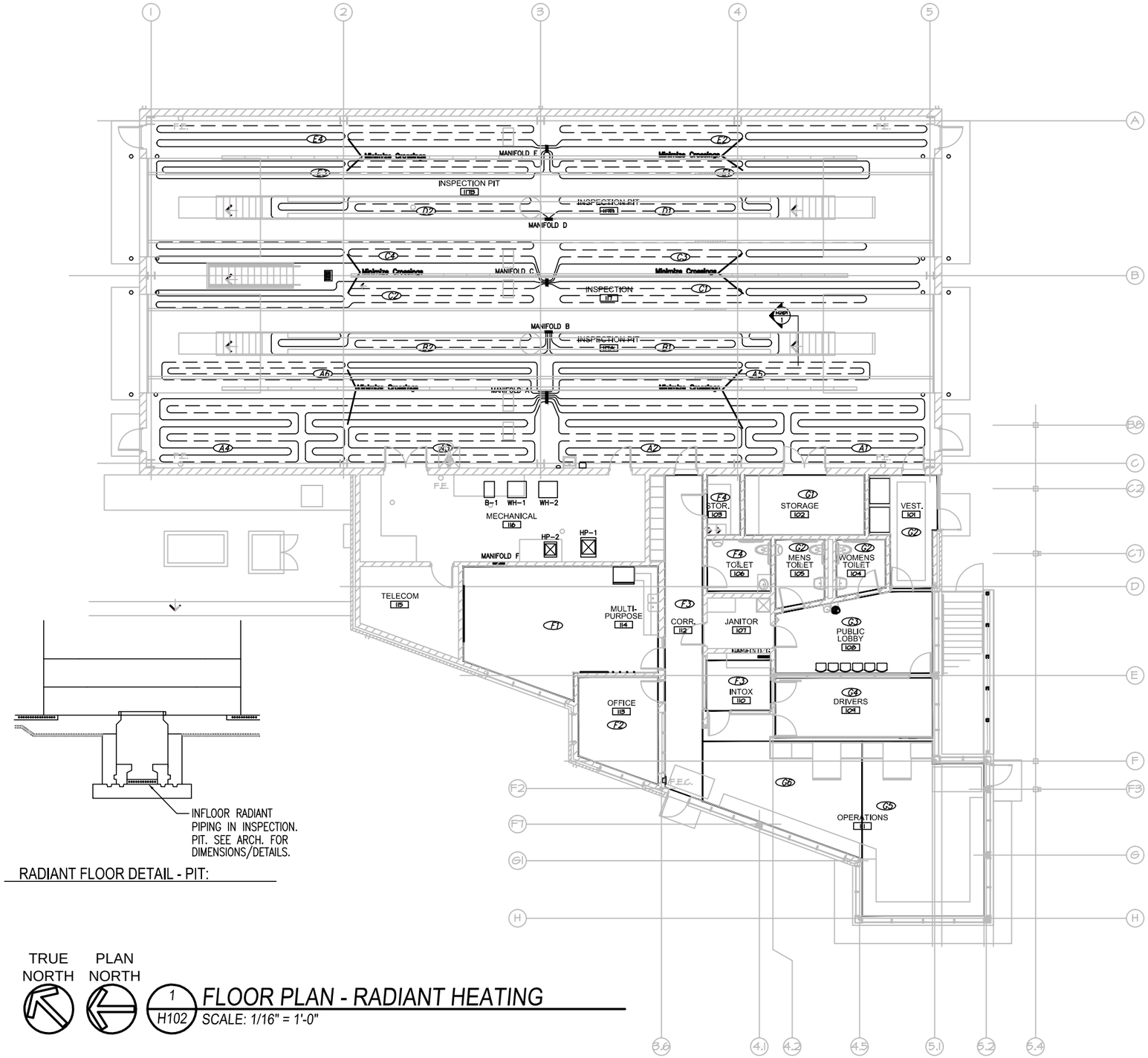
MANIFOLD 'C'	LENGTH	SPACING	AS-BUILT	COVERAGE ZONE
CIRCUIT 1	185'	12"		1 - 9 / 10
CIRCUIT 2	227'	12"		2 - 1 / 2
CIRCUIT 3	193'	12"		2 - 3 / 4
CIRCUIT 4	234'	12"		2 - 5 / 6

MANIFOLD 'D'	LENGTH	SPACING	AS-BUILT	COVERAGE ZONE
CIRCUIT 1	143'	12"		2 - 7
CIRCUIT 2	159'	12"		2 - 8

MANIFOLD 'E'	LENGTH	SPACING	AS-BUILT	COVERAGE ZONE
CIRCUIT 1	188'	12"		2 - 9 / 10
CIRCUIT 2	220'	12"		3 - 3 / 4
CIRCUIT 3	226'	12"		3 - 1 / 2
CIRCUIT 4	226'	12"		3 - 5 / 6

MANIFOLD 'F'	SQ. FT.	SPACING	AS-BUILT	COVERAGE ZONE
CIRCUIT 1	430	18"		4 - 1
CIRCUIT 2	150	18"		4 - 2/3
CIRCUIT 3	324	18"		4 - 2/3
CIRCUIT 4	106	18"		4 - 4/5

MANIFOLD 'G'	SQ. FT.	SPACING	AS-BUILT	COVERAGE ZONE
CIRCUIT 1	145	18"		4 - 4/5
CIRCUIT 2	243	18"		4 - 4/5
CIRCUIT 3	233	18"		4 - 6/7
CIRCUIT 4	148	18"		4 - 6/7
CIRCUIT 5	415	18"		4 - 8
CIRCUIT 6	327	18"		4 - 9



RADIANT FLOOR DETAIL - PIT:

TRUE NORTH

PLAN NORTH

1 / H102 FLOOR PLAN - RADIANT HEATING

SCALE: 1/16" = 1'-0"

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR PLAN - RADIANT HEATING	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET	SHEET NO: H102 / DOT #

GEOTHERMAL BORING NOTES

1. BORING CONTRACTOR SHALL COORDINATE THERE WORK WITH EXISTING CONDITIONS AND WITH THE WORK OF OTHER TRADES.
2. BORING CONTRACTOR SHALL BORE FIRST HOLE TO DETERMINE MAX DEPTH. IF THE MAX DEPTH IS LESS THAN 250 FEET THE CONTRACTOR TO ADD AN ADDITIONAL 8 BORES. IF MAX DEPTH IS LESS THAN 150 FEET THE CONTRACTOR TO CONTACT THE ENGINEER FOR DIRECTION.
3. PROVIDE MAGNETIC TRACE TAPE ON HYDRONIC DISTRIBUTION PIPING UP TO VERTICAL BORES.

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

INSPECTION BUILDING

LP TANKS.

COMMUNICATION TOWER

FINISHED FLOOR
DATUM=764.50'
WORKING POINT=100'-0"

SCALE BUILDING

SEE SHEET H102 FOR CONTINUATION OF PIPING. PROVIDE SLEEVE THROUGH FOUNDATION AND SEAL WATERTIGHT.

2" GWS & GWR

3/4" GWS & GWR

2" GWS & GWR

15'-0"

15'-0"

15'-0"

15'-0"

WELL

COORDINATE LOCATION OF WELL AND BORE FIELD. KEEP AT LEAST 25' FROM WELL.

FLAG

SOUTH BOUND ACCESS

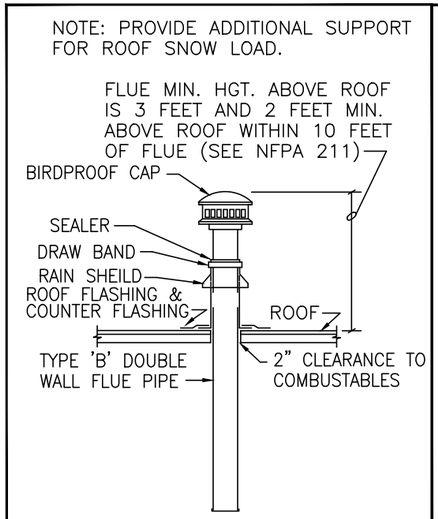
STATIC SCALE

TRUE NORTH

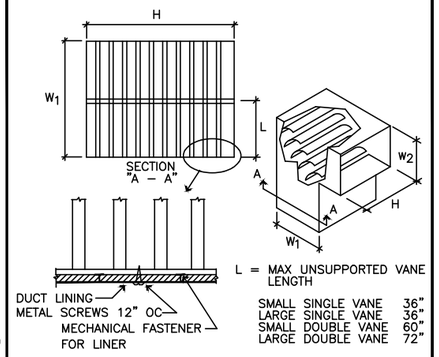
PLAN NORTH

1 / C102 SITE PLAN

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SITE PLAN		DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: H202	DOT #

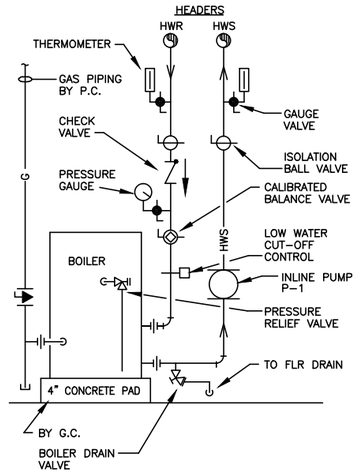


1 **FLUE TERMINATION DETAIL**

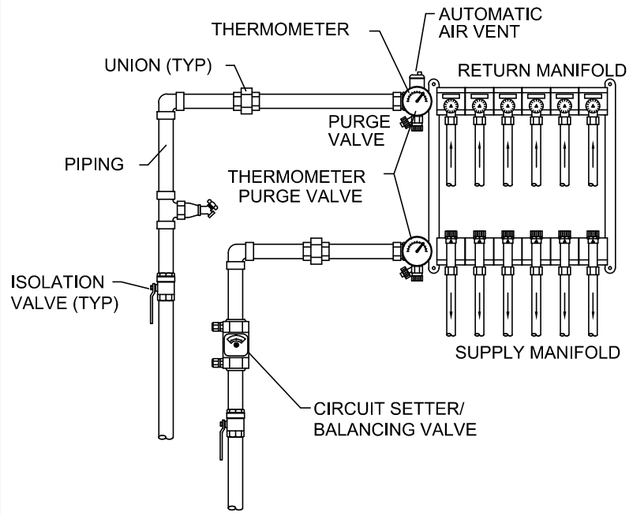


NOTES:
1. INSTALL VANES IN SECTIONS OR USE TIE RODS TO LIMIT UNBRACED VANE LENGTH
2. SECURELY FASTEN VANES TO RUNNERS TO ELIMINATE VIBRATION
3. PREVENT LINING DAMAGE WHEN INSTALLING VANES IN LINED OR FIBROUS GLASS DUCT
4. IF $W_1 \neq W_2$, SPECIAL PROVISIONS MUST BE MADE IN VANE SHAPE, ANGLE OF ENTRY, OR EXIT. APPLIES TO ALL TYPES OF VANES

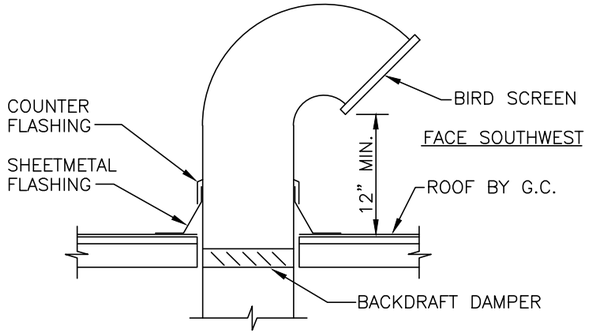
2 **TURNING VANES IN ELBOW** N.T.S.



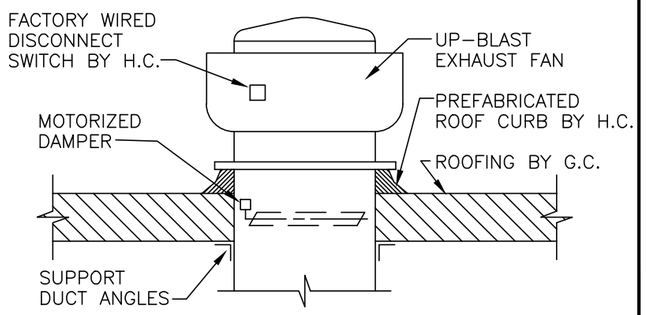
3 **HOT WATER BOILER DETAIL**



4 **MANIFOLD PIPING ACC $ DETAIL**

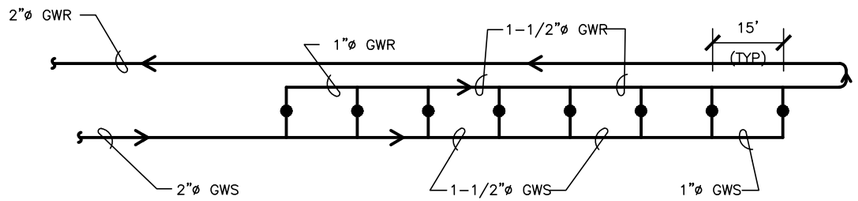


5 **GOOSENECK ROOF PENETRATION DETAIL**



6 **UP-BLAST EXHAUST FAN & CURB DETAIL**

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			HVAC DETAILS	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: H501 / DOT #



1 H510 GEOTHERMAL BRANCH LAYOUT
8 BORE CIRCUIT
NO SCALE

GENERAL NOTES:

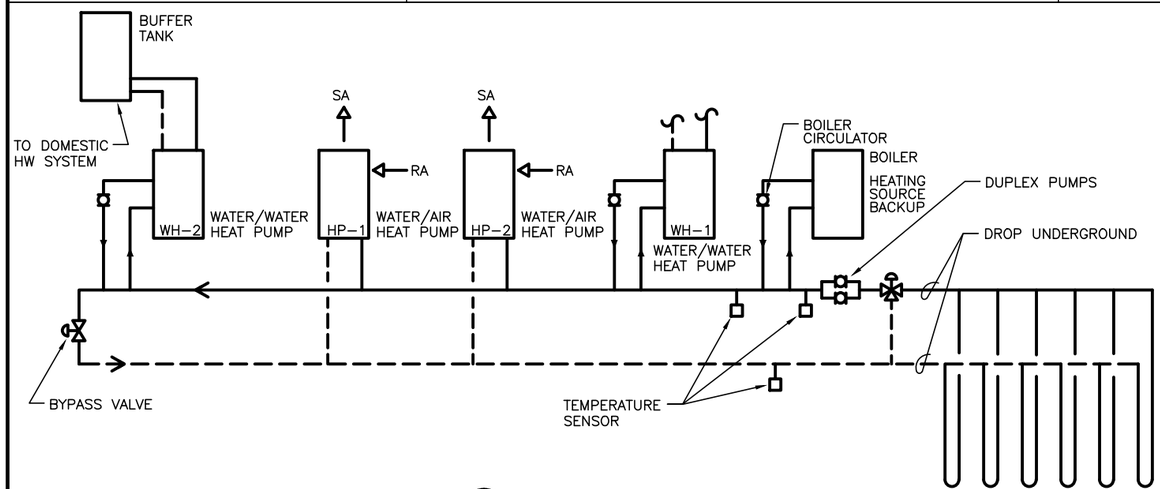
A. THE GEOTHERMAL CONTRACTOR IS REQUIRED TO VISIT THE SITE AND TAKE NOTE OF ALL EXISTING CONDITIONS THAT MAY AFFECT THIS WORK AND BE RESPONSIBLE FOR KNOWLEDGE OF SAME IN PREPARATION OF THIS BID. CONTRACTOR TO ALSO FAMILIARIZE THEMSELVES WITH GROUND FORMATIONS TO 200' DEEP IN THE AREA OF THE LACK OF INFORMATION ON EXISTING CONDITIONS SHALL NOT BE ALLOWED AS A VALID CAUSE FOR ADDITIONAL COMPENSATION.

B. CONTRACTOR TO DETERMINE OPTIMAL LOCATION FOR GEOTHERMAL PIPING BETWEEN FIELD AND BUILDING. LAYOUT SHOWN IS SCHEMATIC. ROUTE ALL PIPING AS REQUIRED TO AVOID CONFLICTS WITH EXISTING AND NEW UTILITIES. CONTACT "DIGGERS HOTLINE" AND LOCAL GAS, ELECTRIC AND WATER UTILITIES TO CONFIRM LOCATIONS OF ALL EXISTING PIPES, CONDUITS, ETC.

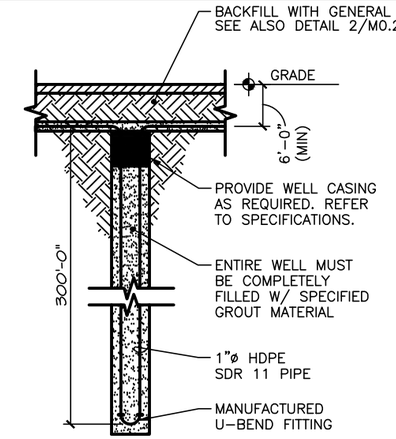
C. COORDINATE ALL BOREFIELD WORK WITH SITE/CIVIL CONTRACTOR INCLUDING LOCATIONS OF UTILITIES, EASEMENTS, AND ANY OTHER NON-GEOTHERMAL ITEM LOCATED IN THE BOREFIELD AREA OR IN THE ROUTE OF THE GEOTHERMAL PIPING TO BUILDING MECHANICAL ROOM. ALL THIS COORDINATION SHALL TAKE PLACE PRIOR TO STARTING WORK.

GEOTHERMAL FIELD INFORMATION	
NUMBER OF GEOTHERMAL BORES	8
BORE DEPTH	250
NUMBER OF CIRCUITS	3
NUMBER OF BORES PER CIRCUIT	3 CIRC @ 8 BORES
GROUT THERMAL CONDUCTIVITY	1.0 BTU/H-FT-F
GEOTHERMAL BORE SIZE	5"ø
BORE PIPE SIZE	1"ø
PIPE TYPE (BORE AND LATERAL CIRCUITS)	SDR 11
FLUID WITHIN PIPING	25% PROP GLYCOL
MAX. FLUID FLOW	32 GPM
PRESSURE DROP EXTERNAL TO BUILDING	26 FT
BUILDING ENTERING WATER TEMPERATURE	87°F MAX./32°F MIN.
APPROXIMATE VOLUME OF EXTERIOR PIPING	1137 GALLONS

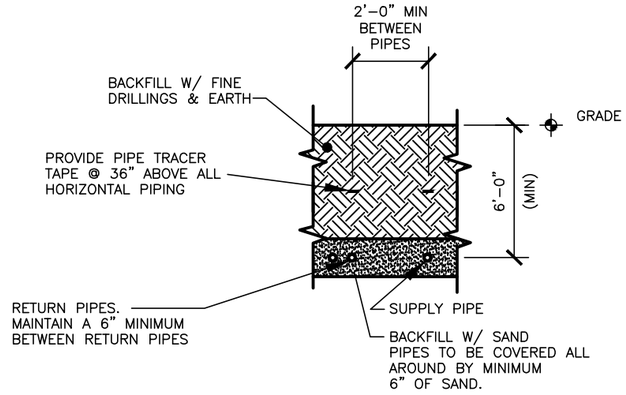
2 H510 GEOTHERMAL FIELD INFORMATION
NO SCALE



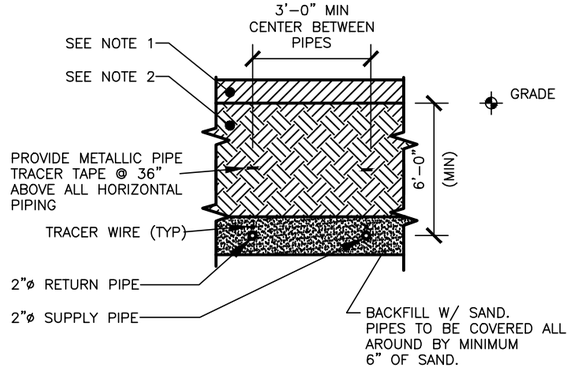
3 H510 GEOTHERMAL SYSTEM SCHEMATIC
NO SCALE



4 H510 GEOTHERMAL BORE DETAIL
NO SCALE



5 H510 TYPICAL GEOTHERMAL CIRCUIT TRENCH DETAIL
NO SCALE



NOTES:

1. COORDINATE FINAL GRADE WITH SITE/CIVIL CONTRACTOR. TOPSOIL PER SPECIFICATIONS.
2. BACKFILL WITH GENERAL FILL TO ROUGH GRADE.
3. ALL METALLIC TRACER TAPE TO BE TERMINATED AT ABOVE-GRADE ACCESSIBLE LOCATION PER SPECIFICATIONS.

6 H510 GEOTHERMAL PIPE MAINS TRENCH DETAIL
NO SCALE

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			GEOTHERMAL SCHEDULE, DETAILS & NOTES	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: H510 / DOT #

GEOTHERMAL HEAT PUMP SCHEDULE

GENERAL: TAG	HP-1	HP-2		
MANUFACTURER	CLIMATEMASTER	CLIMATEMASTER		
MODEL NO.	TT-064	TT-049		
ARRANGEMENT	VERTICAL	VERTICAL		
FAN: CFM	1950	1640		
ESP ("WG)	0.75	0.75		
FAN SPEED	HIGH	HIGH		
MIN. FA CFM (%)	15%	15%		
WATER COIL DATA: GPM	11.3	9.0		
WPD	4.2'	3.9'		
COOLING DATA: TOTAL MBH	56.2	43.8		
HEAT OF REJECTION	73.9	56.6		
EWT	90°F	90°F		
LWT	100°F	100°F		
EER	10.9	11.7		
HEATING DATA: TOTAL MBH	60.4	48.9		
HEAT OF ABSORPTION	46.2	38.0		
EWT	52°F	52°F		
LWT	40°F	40°F		
COP	4.22	4.48		
PIPING: GWS/GWR	1"	1"		
DRAIN	3/4"	3/4"		
UNIT WEIGHT	443	416		
ELECTRICAL: HORSEPOWER	1	1		
VOLTAGE/PHASE	208/3	208/3		
FLA	24.6	20.5		
MCA/MOCP	29.0/45	23.9/35		
REMARKS:	(1)(2)(3)(4)	(1)(2)(3)(4)		

(1) FILTER UNIT SHALL BE A THROWAWAY TYPE FILTER.
(2) DRAIN PIPING TO FLOOR DRAIN.
(3) PROVIDE AND INSTALL 7-DAY PROGRAMMABLE THERMOSTAT.
(4) PROVIDE AND INSTALL MICROMETAL ECONOMIZER SECTION.
(5) HONEYWELL VERSA-GUARD #TG511A1000 LOCKABLE COVER FOR THERMOSTAT.

DIFFUSERS REGISTERS AND GRILLES SCHEDULE

TAG	MANUFACTURER	MODEL#	SIZE NECK (WxH)	SIZE FACE (L)	MOUNTING	SERVICE	CFM	REMARKS
CD-1	PRICE	-	6" DIA.	--	SEE ARCH	SUPPLY	0-100	(1)(3) 4-WAY CD
CD-2	PRICE	-	8" DIA.	--	SEE ARCH	SUPPLY	101-250	(1)(3) 4-WAY CD
CD-3	PRICE	-	10" DIA.	--	SEE ARCH	SUPPLY	251-450	(1)(3) 4-WAY CD
RG-1	PRICE	-	22"x22"	--	SEE ARCH	RETURN	900-1500	(2)(3) RETURN GRILLE
TG-1	PRICE	-	22"x22"	--	SEE ARCH	TRANSFER	-	(2) TRANSFER GRILLE
EG-1	PRICE	-	-	8"x8"	WALL	EXHAUST	125	(3) EXHAUST GRILLE
EG-2	PRICE	-	-	8"x8"	SURFACE	EXHAUST	300	(3) EXHAUST GRILLE
EG-3	PRICE	-	-	8"x8"	DUCT	EXHAUST	500	(3) EXHAUST GRILLE
EG-4	PRICE	-	-	-	BRICK	EXHAUST	100-200	(3) BRICK EXHAUST VENT
EG-5	PRICE	-	-	8"x8"	SEE ARCH	EXHAUST	75-150	(3) EXHAUST GRILLE

(1) WHITE FINISH.
(2) WHITE FACE PANEL WITH BLACK INTERIOR.
(3) OPPOSED BLADE DAMPER.

NOTE: PROVIDE 3-HOUR FIRE DAMPER WHERE REQUIRED.

CD = CEILING DIFFUSER RG = RETURN GRILLE DG = DOOR GRILLE

LOUVER SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	METAL	LOUVER DEPTH x W x HT	FREE AREA S.F.	SERVICE	REMARKS
L-1	GREENHECK	ESD-403	STAT.	EXT. ALUM.	4" x 72" x 24"	-	FRESH AIR	(1)
L-2	GREENHECK	ESD-403	STAT.	EXT. ALUM.	4" x 48" x 30"	-	RELIEF AIR	(1)
L-3	GREENHECK	ESD-403	STAT.	EXT. ALUM.	4" x 48" x 30"	-	FRESH AIR	(1)
L-4	GREENHECK	ESD-403	STAT.	EXT. ALUM.	4" x 32" x 32"	-	FRESH AIR	(1)

REMARKS:
(1) COLOR SELECTION BY ARCHITECT.

LP GAS-FIRED RADIANT TUBE HEATING SYSTEM

TAG	MANUFACTURER	MODEL	TYPE	SIZE HTxWxDEPTH	CAP. BTU/HR	ELECTRICAL VOLTS/PHASE	AMPS	REMARKS
RAD-1	DETROIT RADIANT	HL3-40-125	INFRARED RADIANT HEATER	14"x18"x4"	125,000	120/1	5.0	(1)(2)

(1) THERMOSTST (TAMPERPROOF) WITH INSULATED SUB-BASE.
(2) DISCONNECT SWITCH @ UNIT.

WATER TO WATER HEAT PUMP

TAG	MANUFACTURER	MODEL NO.	TYPE	HEATING MBH	ENT. SOURCE FLUID (°F)	LEAVING LOAD FLUID (°F)	VOLTAGE	MCA/MAX FUSE	REMARKS
WH-1	FHP	WW210	WATER TO WATER	192.32	50	120	208/230	73.9/130	
WH-2	FHP	WW072	WATER TO WATER	64.57	50	120	208/230	24.2/40	

ENERGY RECOVERY UNIT WITH HEATING

TAG	ERH-1		
MANUFACTURER	GREENHECK		
MODEL NO.	ERH-55H-15		
TYPE	INDIRECT		
CFM	4,500		
ESP ("WG)	0.60		
SOUND (SONES)	-		
BONNET: INPUT (BTU/HR)	199,000		
OUTPUT	--		
EAT DB(°F)	0		
LAT DB(°F)	110.3		
FILTER: TYPE	MERV 8		
FILTER FRAME	-		
ELECTRICAL: VOLTAGE/PHASE	208/3		
MCA	-		
MOCP	-		
REMARKS:	(1)		

NOTE: ALL LINE VOLTAGE WIRING BY E.C.
(1) PROVIDE MERV 8 FILTER AND DAMPERS FOR SUPPLY AND EXHAUST. FROST CONTROL (25kW) HEATER, ROTATION SENSOR, CO2 SENSOR ROOM/SPACE MOUNTED, PROGRAMMABLE THERMOSTAT LOCATED IN INSPECTION BY DOOR TO OFFICE.

EXHAUST FANS SCHEDULE

TAG	EF-1	EF-2	EF-3	EF-4	EF-5	EF-6	EF-7	EF-8
MANUFACTURER	GREENHECK	GREENHECK	NOT USED	NOT USED	NOT USED	NOT USED	GREENHECK	GREENHECK
MODEL NO.	SP100	GB-101					GB-161	SP200
AREA SERVED	SEE PLAN	SEE PLAN					SEE PLAN	SEE PLAN
CFM	80	300					2,000	150
ESP *WG	0.125	0.375					0.50	0.125
RPM	950	976					942	960
MOUNTING	CEILING	ROOF					ROOF	CEILING
DRIVE	DIRECT	BELT					BELT	DIRECT
SONES	2.2	2.6					10.6	2.5
ELECTRICAL: MOTOR HP (BHP)	FRAC.	FRAC.					1/3	FRAC.
FAN F.L.A.	1.4	1.4					-	1.6
VOLTAGE/PHASE	120/1	120/1					120/1	120/1
CONTROL	(1)	(1)					(1)	(1)
REMARKS:								

CONTROL TYPE:
(1) EXHAUST FANS: BUILDING OCCUPANCY TIME-CLOCK. PROVIDED BY HVAC CONTRACTOR

NOTE: ALL LINE VOLTAGE WIRING BY E.C.

H.C. TO PROVIDE EXHAUST SOFFIT VENT. AND TO MATCH BUILDING EXTERIOR..
HVAC CONTRACTOR TO PROVIDE (3) THREE TIME CLOCKS AS DESCRIBED BELOW:
TIME CLOCK #1: FURNACE SYSTEM F-1 AND RELATED EXHAUST FANS & EQUIPMENT SERVING THAT AREA.
TIME CLOCK #2: FURNACE SYSTEM F-2,3 & 4 AND RELATED EXHAUST FANS & EQUIPMENT SERVING THAT AREA.
TIME CLOCK #3: ALL EQUIPMENT LOCATED IN INSPECTION GARAGE.

AIR COOLED CONDENSING UNIT SCHEDULE

GENERAL: TAG	COND-3			
SERVICE	WAC-1			
MANUFACTURER	MITSUBISHI			
MODEL NO.	MU09TW			
CAP. (MBH)	8.5			
AMBIENT TEMP (F)	95			
SAT SUCTION TEMP (°F)	45			
COND AIR FLOW (CFM)	--			
NO. COND. FANS	1			
NO. REF CIRCUITS	1			
REFRIG. LINE: RS SIZES RL HOT GAS BYPASS	3/8" 1/4" -			
EER	10.2			
ELECTRICAL: VOLTAGE/PHASE	208/1			
COMP RLA	1.4			
COND. FANS FLA	-			
MCA	-			
MCOP	-			
REMARKS:				

1. PROVIDE HOT GAS BYPASS AND RELATED ACCESSORIES COMPLETE.

NOTE: VERIFY EXACT REQUIREMENTS PRIOR TO ORDERING EQUIPMENT. COORDINATE ELECTRICAL REQUIREMENTS WITH E.C.

DUCTLESS SPLIT SYSTEM - WALL MOUNTED

GENERAL: TAG	WAC-1		
SERVICE	SEE PLAN		
MANUFACTURER	MITSUBISHI		
MODEL NO.	MS09TW		
CLG CAP. (BTU)	8,500		
AIRFLOW	300		
MAX PIPE LENGTH (F)	25		
ELECTRICAL: VOLTAGE/PHASE	115/1		
AMPS	0.2		
REMARKS:	(1)		

(1) PROVIDE ALL ACCESSORIES FOR A COMPLETE INSTALLATION, INCLUDING AN INTEGRAL HEATING/COOLING WIRELESS THERMOSTAT

PUMP SCHEDULE

TAG	P-1	P-2	P-3	CP-1
MANUFACTURER	B & G	B & G	B & G	B & G
MODEL NO.	PL	PL45	NRF-22	PL50
TYPE	BOILER CIRCULATOR	SYSTEM CIRCULATOR	INJECTION PUMP	GEOTHERMAL SYSTEM
LOCATION	MECHNICAL ROOM	MECHNICAL ROOM	MECHNICAL ROOM	MECHNICAL ROOM
SERVICE	RADIANT	RADIANT	RADIANT	GEOTHERMAL
GPM	15	35	9	40
HP(BHP)	-	-	-	-
EFFICIENCY (%)	55	54	50	56
SUCTION I.D.	1"	1-1/2"	1"	1-1/2"
DISCHARGE I.D.	1"	1-1/2"	1"	1-1/2"
MOTOR: HORSEPOWER	FRAC	1/6	1/20	1/6
VOLTAGE/PHASE	115/1	115/1	115/1	115/1
RPM	1650	1760	1600	1760
REMARKS:	(1)	(1)	(1)	(1)

(1) PROVIDE PUMPS TO HANDLE 25% GLYCOL IN SYSTEM.

HOT WATER SPECIALTIES SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL NO.	CAPACITY	REMARKS
AIR SEPERATOR AS-1	PRIMARY HOT WATER	B & G	R-3	2"	W/STRAINER
EXPANSION TANKS ET	HOT WATER	TACO	CA140	45	(1) BLADDER TYPE
AUTOMATIC AIR VENT	HOT WATER	TACO	426	1/4"ø	HIGH CAP 12SCFM @ 30 PSI
PRESSURE REDUCING VALVES	MAKE-UP WATER	TACO	334	1/2"ø	BRASS NPT
BYPASS CHEM FEEDER	HOT WATER	CHEM-TRT SUPPLIED	--	2 GAL	W/DRAIN VALVE

(1) PROVIDE PAINTED EXPANSION TANKS WITH SADDLE SUPPORTS, GAUGE GLASS AND VALVES.

HOT WATER BOILER SCHEDULE

TAG	MANUFACTURER	MODEL NO.	TYPE	FUEL	INPUT MBH	OUTPUT MBH	EFF %	VENT & COMB AIR	REMARKS
B-1	MUNCHKIN	199M	FULL CONDENSING	PROP.	199	183	92	3"/3"	

ENERGY RECOVERY UNIT SCHEDULE

Unit ID	Manufacture	Model #	Supply Air Flow			Exhaust Air Flow			Summer Design Conditions				Winter Design Conditions				Summer Supply Conditions				
									Outside Air		Return Air		Outside Air		Return Air		Volume	db	wb	Spec Humidity	Enthalpy
			CFM	E.S.P in wc	Fan HP	CFM	E.S.P in wc	Fan HP	db	wb	db	%RH	db	wb	db	%RH	(CFM)			(gr/lb)	(BTU/lb)
ERV-1	GREENHECK	MINIVENT - 450	375	0.25	FRAC	375	0.5	FRAC	94.0	71.0	82.0	42.0	-20.0	-20.6	68.0	35.0	375	85.1	67.1	71.0	31.5

ENERGY RECOVERY UNIT SCHEDULE (CONTINUED)

Winter Supply Conditions					Volts Phase Hertz	Max Over Current Protect (A)	MCA	Motor Enclosure	Drive Type	Remarks
Volume	db	wb	Spec Humidity	Enthalpy						
(CFM)			(gr/lb)	(BTU/lb)						
375	45.1	39.4	27.0	14.9	120/1/60	15	-	ODP	DIRECT	

CONCRETE CURB

LANDSCAPE AREA. SEE LANDSCAPE PLANS.

PAVEMENT MARKINGS. SEE ROADWAY PLANS.

INSPECTION BUILDING

GEN

TRANS.

FINISHED FLOOR
DATUM=764.50'
WORKING POINT=100'-0"

R
LPA-19

OPERATIONS BUILDING

COMMUNICATION TOWER

MOUNT LIGHTS ON FLAG POLE 12'-0" ABOVE GRADE

R
LPA-19

WELL

PPA-1-3-5

WELL WIRING JUNCTION BOX

N
EMA-19

EMA-19

N

FLAG POLE

S
LPA-19

LPA-19

S

LPA-19

S

LPA-19

S

R
LPA-19

CONC. CURB METAL BOLLARD TYPICAL OF 3

CONCRETE CURB

PAVEMENT MARKING

CONCRETE APRON. SEE ROADWAY PLANS.

STATIC SCALE. SEE ROADWAY PLANS

TRUE NORTH

PLAN NORTH

1
C102

SITE PLAN

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			SITE PLAN	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-00	HWY: USH 2/ 53	COUNTY: DOUGLAS	SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0 5 10 20	SHEET NO: OF	DWG. 186

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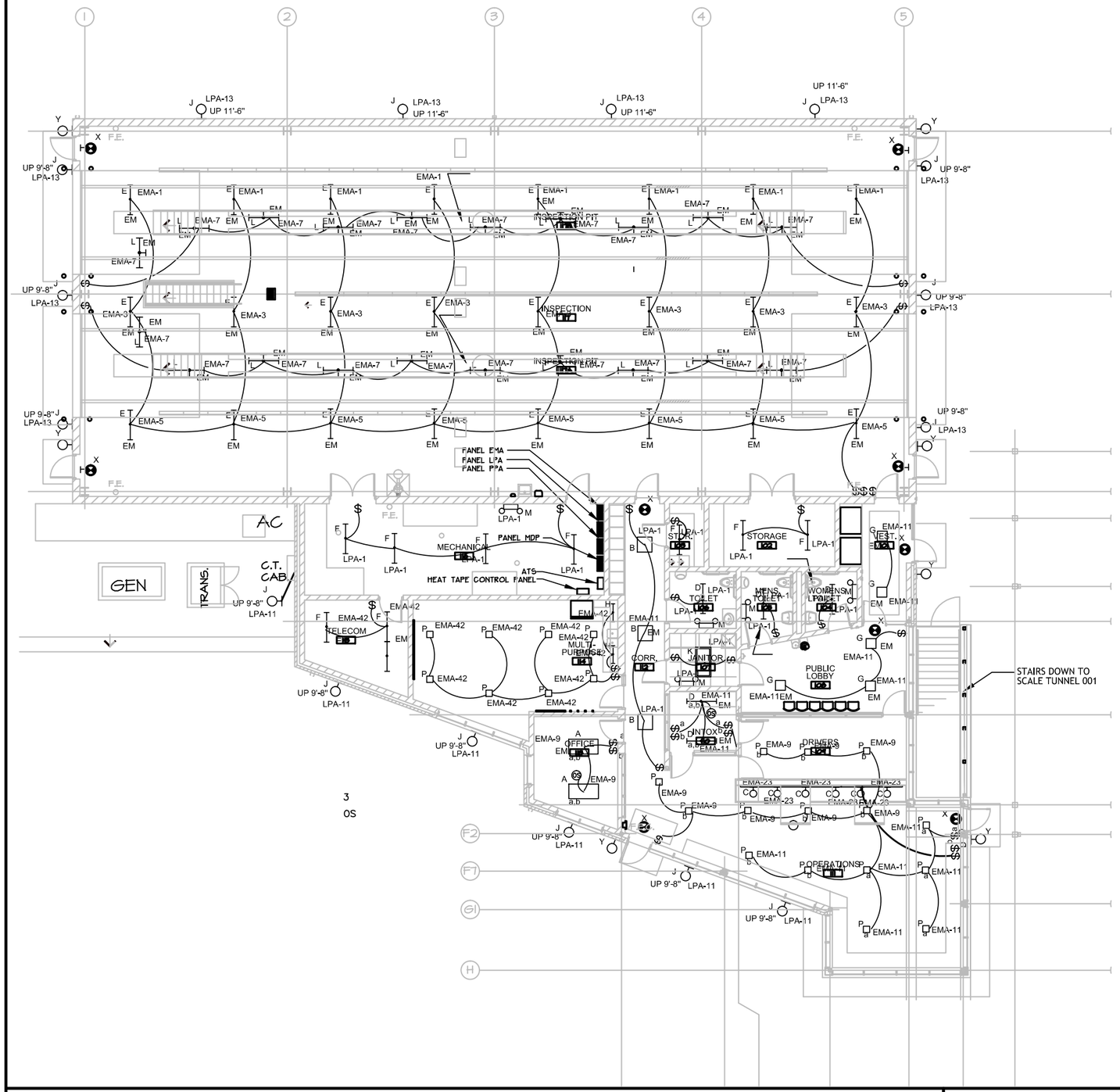


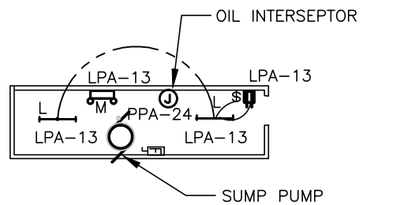
LIGHTING FIXTURE SCHEDULE

TAG	LAMPS NO.	LAMPS TYPE	LAMPS WATTS	LAMPS DESCRIPTION	MOUNTING	MFGR & MODEL	REMARKS
A		LED	50		RECESSED	LITHONIA – 2RTL4–40L–MVOLT–D49–LP840–BLD	(1) DIRECT/INDIRECT
B		LED	17		RESESSED	LITHONIA – 2RTL2–24L–MVOLT–D24–LP840–BLD	(1) DIRECT/INDIRECT
C	1	TRACK		SUPPLIED W/FIXTURE	SURFACE	LITHONIA – LT4–WH	(8) LIGHT TRACK
D		LED	50		SURFACE	LITHONIA – LBL4LP840	(1) 4' MODULAR
E		LED	66		SURFACE	LITHONIA – FHELED–PCL–MVOLT	(1) 4' GASKETED
F		LED	24		SURFACE	LITHONIA – MNSL–MV–M6	(1) 4' STRIP
G		LED	19		RECESSED	LITHONIA – REAL6CD6–A–ESL–1500L–40K–.95SC–120	FLUOR CAN
H		LED	14		SURFACE	LITHONIA – RAZ24	(1) UNDERCOUNTER
J		LED	69		WALL	LITHONIA – CSXWLED–30C–700–40K–TFTM––MVOLT–DDBXD	(5) WALL PACK
K		LED	50		RECESSED	LITHONIA – 2TL4–46L–FW–A12–D50–LP840–BLD	(1) 2X4 ACRYLIC
L		LED	66		WALL	LITHONIA – FHELED–PCL–MVOLT	(1) 4' GASKETED
M				SUPPLIED W/FIXTURE	WALL	LITHONIA – ELM–SD	EMERGENCY EGRESS LIGHT W/BATTERY BACK–UP
X		LED		SUPPLIED W/FIXTURE	WALL	LITHONIA – LQM–S–W–1R–120/277–EL N SD	(3) EXIT LIGHT
Y				SUPPLIED W/FIXTURE	WALL	LITHONIA – AFN–W–EXT	(4) REMOTE FIXTURE
N	1	MH	250	MXR250/U/MED	POLE	LITHONIA – KFL3–250M–SP–120–THK–SCWA–LPI	(7) FLAG LIGHT
P	1	IN	75	75WR30	RECESSED	LITHONIA – APR–PAR30–6–AR–LD	INCAND.CAN
R		LED	39		POST	LITHONIA – KBD8–16C–530–40K–SYM–MVOLT–PE–DDBXD	METAL BOLLARD
S		LED	89		POLE	LITHONIA – DSX1LED–40C–700–40K–T4M–MVOLT–SPA–DDBXD	(6) PARKING LIGHT

LAMP ABBREVIATIONS:
LED = LIGHT EMITTNG DIODE, F = FLOURSCENT, TH = TUNGSTEN HALOGEN, MH = METAL HALIDE, LV = LOW VOLTAGE
CF = COMPACT FLOURSCENT, IN = INCANDESCENT, HPS = HIGH PRESSURE SODIUM

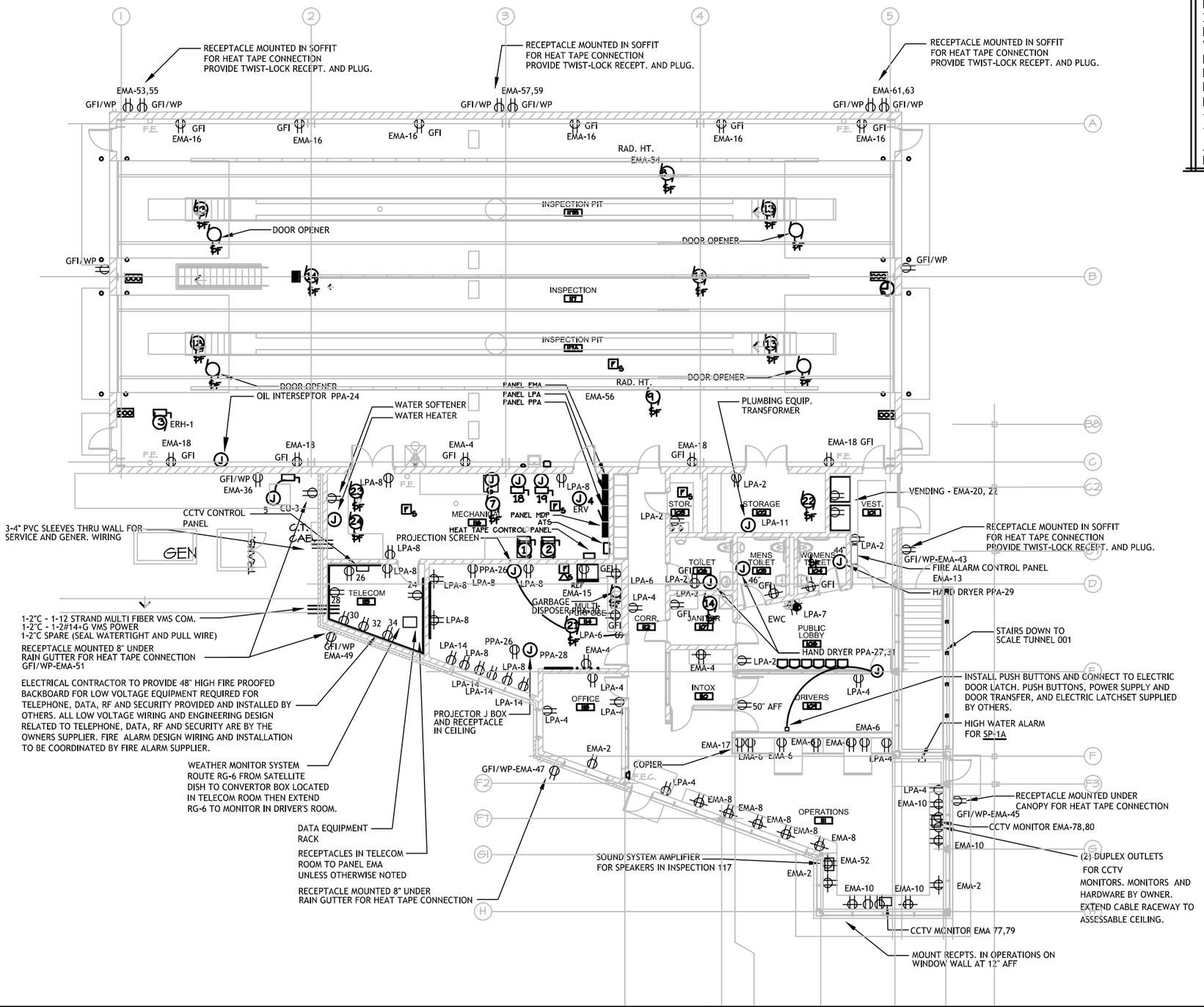
REMARKS:
(1) ELECTRONIC BALLAST – 1 LAMP – GE–132–MAX–N/ULTRA – 2LAMP – GE–232–MAX–N/ULTRA
(2) PROVIDE HIGH POWER FACTOR, CLASS 'A' SOUND RATED BALLAST.
(3) CONTRACTOR TO PROVIDE SINGLE OR DOUBLE PANEL EXIT FACE AS REQ'D AND MOUNT FIXTURE AS INDICATED ON DWGS.
(4) CONTRACTOR TO PROVIDE REMOTE TEST SWITCH
(5) CONTRACTOR TO MOUNT "J" FIXTURE AT ELEVATION 9'–8" COORDINATE WITH ARCH ELEVATION
(6) MOUNT ON 30 FT ROUND STEEL POLE
(7) MOUNT ON POLE 10' ABOVE GRADE WITH FPMB MOUNTING BRACKET
(8) TRACK HEAD – LTC–STPC–PAR30–WB–WH

GENERAL LIGHTING NOTES
- ALL FIXTURES TO BE 120V UNLESS NOTED OTHERWISE.
- SEE SPECIFICATIONS FOR FIXTURE AND BALLAST REQUIREMENTS.
- COORDINATE LAMP BURNING POSITIONS TO BE COMPATIBLE WITH FIXTURE.



SCALE TUNNEL 001

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR PLAN - LIGHTING & FIXTURE SCHEDULE	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: E101 / DOT #



NOTE: EXCEL HAND DRYER

HAND DRYERS TO BE XLERATOR SERIES SELF-CONTAINED ELECTRIC HAND DRYER. PROVIDE SHOP DRAWINGS AND ELECTRICAL WIRING DIAGRAMS. HAND DRYER, WARM AIR, RAPID DRYING, ENERGY EFFICIENT, SURFACE MOUNTED, ENTIRE DRYER INTERNALLY GROUNDED. 5 YEAR LIMITED WARRANTY. COVER STAINLESS STEEL WITH POLISHED FINISH. POWER SOURCE 110/120 VOLT, 12.5 AMPS, 60 HZ. MOUNTING HEIGHTS – MEN'S TOLIET 45", WOMEN'S TOLIET 43". INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. INSTALL DRYER AT SPECIFIED HEIGHTS.

NOTE: BRAKE TESTER(2)

PROVIDE POWER FROM DISCONNECT SWITCH TO CONTROL PANEL AND FROM CONTROL PANEL TO ROLLER PIT. POWER CONDUCTORS AND 2" CONDUITS PROVIDED BY E.C. E.C. TO PULL CONTROL CABLE PROVIDE BY EQUIP. SUPPLIER FROM CONTROL PANEL TO ROLLER PIT. EXTEND 3/4" CONDUIT FROM EACH CONTROL PANEL TO COMPUTER/PRINTER LOCATION.

NOTE:

ELECTRICAL CONTRACTOR TO COORDINATE ALL UNDERGROUND AND BELOW FLOOR WORK WITH ALL OTHER CONTRACTORS.

NOTE:

ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT FOR ALL CONDUCTORS, INCLUDING POWER, LOW VOLTAGE&CONTROL WIRING, TELEPHONE&DATA CABLING, MATV/CCTV POWER&DATA AND SIGNAL & DIGITAL SENSOR WIRING.

NOTE:

ELECTRIC SERVICE FEEDERS BY LOCAL UTILITY. FEEDERS UNDER PAVEMENT TO BE IN CONDUIT PROVIDED FROM TRANSFORMER TO BUILDING BY ELECRICAL CONTRACTOR

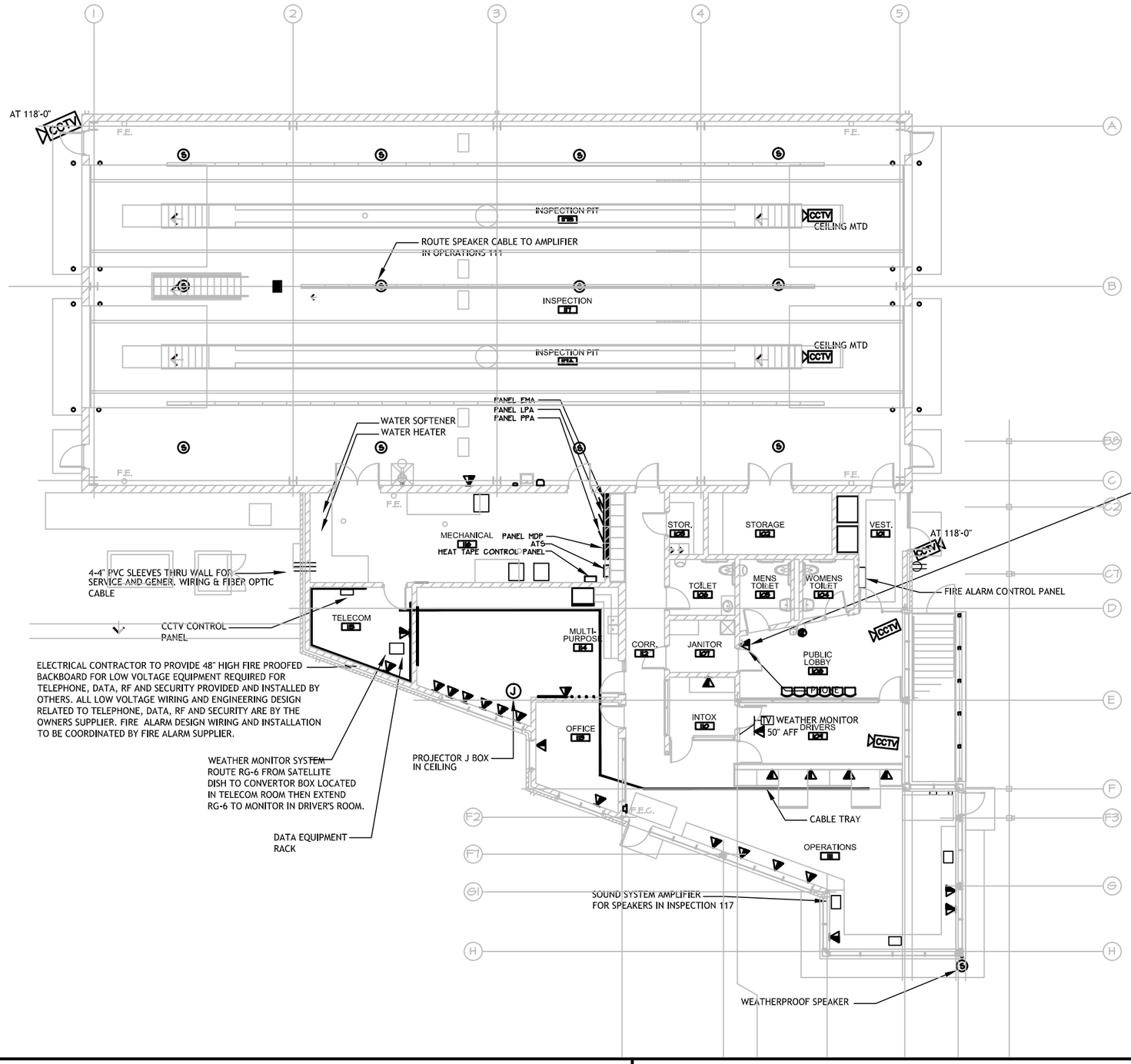
NOTE:

ELECTRICAL CONTRACTOR TO PROVIDE 48"x 48" 3/4" TREATED PLYWOOD BACK-BOARD FOR TELE-COMM EQUIPMENT MOUNTING. ELECTRICAL CONTRACTOR TO INSTALL 2-3" SCH. 80 PVC COND FROM EXTERIOR TO BACK-BOARD. PROVIDE COMMUNICATION GROUND BUSS AND TIE INTO GROUND GRID AT SERVICE

NOTE: CCTV MTV

PROVIDE "J" BOX W/BLANK COVER AND CONDUIT RUN TO HEAD-END AT ALL MATV-CCTV CAMERA LOCATIONS SHOWN. PROVIDE NYLON PULL CORD IN CONDUIT. CAMERA & WIRING BY OWNER.

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR PLAN - POWER	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET	SHEET NO: E102 / DOT # 188



NOTE:

ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT FOR ALL CONDUCTORS, INCLUDING POWER, LOW VOLTAGE&CONTROL WIRING, TELEPHONE&DATA CABLING, MATV/CCTV POWER&DATA AND SIGNAL & DIGITAL SENSOR WIRING.

TELEPHONE (COURTESY)

ELECTRICAL CONTRACTOR TO PROVIDE STAINLESS STEEL (14 ga.) COURTESY PHONE. PHONE TO BE CAPABLE OF ADJUSTABLE VOLUME, REINFORCED WINDOW FOR CUSTOMIZED INSTRUCTION CARD. HAND SET TO BE HEAVY–DUTY ARMORED AND HEARING AID COMPATIBLE (HAC). WORKS WITH STANDARD PHONE LINE. POWERED BY 24 VDC TO 56 VDC, LOOP CURRENT RANGE: 22mA TO 90mA.

NOTE:

ELECTRICAL CONTRACTOR TO PROVIDE 48"x 48" 3/4" TREATED PLYWOOD BACK–BOARD FOR TELE–COMM EQUIPMENT MOUNTING.
ELECTRICAL CONTRACTOR TO INSTALL 2–3" SCH. 80 PVC COND FROM EXTERIOR TO BACK–BOARD. PROVIDE COMMUNICATION GROUND BUSS AND TIE INTO GROUND GRID AT SERVICE

NOTE:

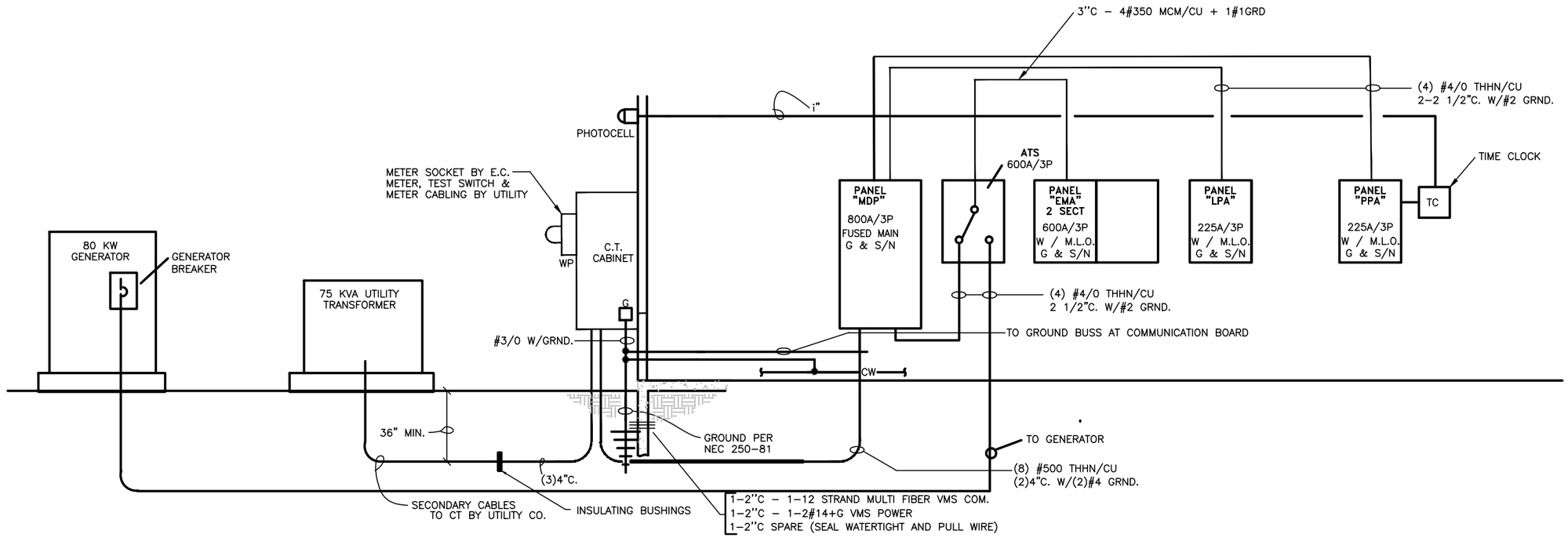
PROVIDE "J" BOX AND CONDUIT RUN TO HEAD–END AT ALL MATV–CCTV CAMERA LOCATIONS SHOWN. PROVIDE NYLON PULL CORD IN CONDUIT. CAMERA & WIRING BY ELECTRICAL CONTRACTOR

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			FLOOR PLAN - DATA	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: E103 / DOT #

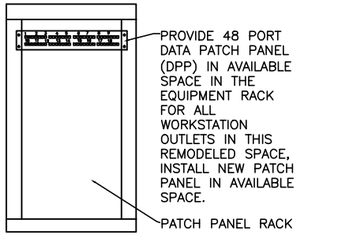
ELECTRICAL SYMBOL SCHEDULE

		INCANDESCENT OR HID: RECESSED
		INCANDESCENT OR HID: SURFACE
		FLUORESCENT: RECESSED
		FLUORESCENT: SURFACE, CEILING MOUNTED
		FLUORESCENT: SURFACE, WALL MOUNTED
		EXIT LIGHT: ARROWS, FACES & MOUNTING AS SHOWN ON DRAWINGS
		EMERGENCY LIGHT W/ BATTERY PACK: WALL MOUNTED
		SWITCHES
	$	SINGLE POLE
	$3	THREE WAY
	$OS	OCCUPENCY SENSOR WALL MOUNT
	OS	OCCUPENCY SENSOR CEILING MOUNT
	$PL	PILOT LIGHT SWITCH
		COMBINATION PHONE/DATA OUTLET IN WALL
		DUPLEX: RECESSED – W.P. INDICATES WATERPROOF
		250V, 2P, 3W SINGLE RECPT.– AMPS AS SHOWN ON DRAWINGS
		DUPLEX RECEPT. MOUNTED ABOVE CASEWORK BACKSPLASH
		EQUIPMENT CONNECTION
	J	JUNCTION BOX–CONCEALED IN FINISHED AREAS, SURFACE IN UNFINISHED AREAS
		SAFETY DISCONNECT SWITCH WITH COVER INTERLOCK–W.P. INDICATES WATERPROOF (NON–FUSED UNLESS INDICATED BY 'F'–FUSED)
		ELECTRICAL POWER PANEL
		UP–DOWN–STOP PUSH BUTTON STATION
	CCTV	SECURITY CAMERA LOCATION
		MOTOR
	$F	FUSED TOGGLE SWITCH
48"	F	FIRE ALARM BREAK GLASS STATION
90"	F	FIRE ALARM HORN WITH VISUAL STROBE LIGHT
90"	F S	FIRE ALARM STROBE
90"	F S	FIRE ALARM SMOKE DETECTOR–CLG. MTD.
	F H	FIRE ALARM HEAT DETECTOR (THERMAL FIXED TEMP.: 135°F OR 190°F)–CLG. MTD.
	F FS	SPRINKLER SLOW SWITCH CONNECTION
	F TS	FIRE ALARM TAMPER SWITCH
	FACP	FIRE ALARM CONTROL PANEL
	S	SPEAKER

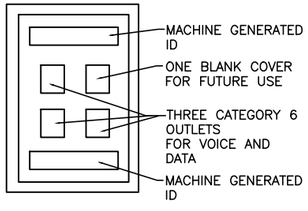
PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ELECTRICAL SYMBOLS & ABBREVIATIONS	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: E501 / DOT #



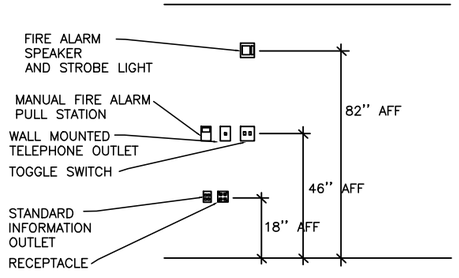
1 / E502 POWER RISER – VEHICLE INSP. BLDG.



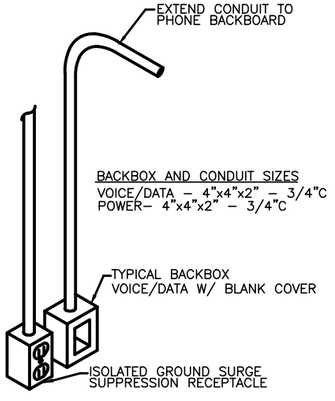
OPEN EQUIPMENT RACK ELEVATION



TYPICAL WORKSTATION DATA OUTLET DETAIL



ELECTRICAL DEVICE MOUNTING HEIGHTS



BACKBOX INSTALLATION DETAIL
RECEPTACLE & VOICE/DATA

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ELECTRICAL RISER & DETAILS	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: E502 / DOT #

PANEL MDP

AMPS 800 MAIN BREAKER

VOLTS 120/208 PHASE 3

MOUNTING LOCATION SURFACE

BRKR A	BRKR P	DESCRIPTION	CIRCUIT WATT	CIRCUIT NO.	PHASELOADS A	PHASELOADS B	PHASELOADS C	CIRCUIT NO.	CIRCUIT WATT	DESCRIPTION	BRKR A	BRKR P
100	3	OPEN	9600	1	27734			2	18134	PANEL PPA	225	3
		"	9600	3		25934		4	16334	"		
		"	9600	5			25404	6	15804	"		
100	3	OPEN	9600	7	49747			8	49147	PANEL EMA	400	3
		"	9600	9		49107		10	39507	"		
		"	9600	11			59997	12	50397	"		
225	3	PANEL LPA	5512	13	5512			14				
		"	2890	15		2890		16				
		"	2240	17			2240	18				
				19				20				
				21				22				
				23				24				
				25				26				
				27				28				
				29				30				
				31				32				
				33				34				
				35				36				
				37				38				
		–		39				40				
		–		41			–	42				
					82993	77931	87641					

ESTIMATED DEMAND LOAD: _____ WATTS _____ AMPS

TOTAL CONNECTED LOADS: 248565 WATTS 690 AMPS

PANEL PPA

AMPS 225 MAIN LUGS

VOLTS 120/208 PHASE 3

MOUNTING LOCATION

BRKR A	BRKR P	DESCRIPTION	CIRCUIT WATT	CIRCUIT NO.	PHASELOADS A	PHASELOADS B	PHASELOADS C	CIRCUIT NO.	CIRCUIT WATT	DESCRIPTION	BRKR A	BRKR P
60	3	WELL PUMP	5760	1	6290			2	530	RADIANT HEAT	20	1
		" "	5760	3		6290		4	530	RADIANT HEAT	20	1
		" "	5760	5			7560	6	1800	EF-1	20	1
20	1	WATER HEATER	1800	7	3600			8	1800	EF-2	20	1
20	3	SPARE	444	9		2244		10	1800	EF-3	20	1
		" "	444	11			2244	12	1800	SPARE	20	1
		" "	444	13	2244			14	1800	SPARE	20	1
35	3	SUMP PUMP P-1	2100	15		3900		16	1800	EF-7	20	1
		" "	2100	17			3900	18	1800	EF-8	20	1
		" "	2100	19	3900			20	1800	DESTRATIFICATION FAN	20	1
35	3	SUMP PUMP P-2	2100	21		3900		22	1800	DESTRATIFICATION FAN	20	1
		" "	2100	23			2100	24	1800	OIL INTERSEPTOR	20	1
		" "	2100	25	2100			26	1800	PROJECTION SCREEN	20	1
20	1	WATER HEATER	1800	27		1800		28	1800	PROJECTOR	20	1
20	1	SPARE	1800	29			1800	30	1800	GARBAGE DISPOSER	20	1
				31				32				
				33				34				
				35				36				
				37				38				
		–		39				40				
		–		41			–	42				
					18134	16334	15804					

ESTIMATED DEMAND LOAD: _____ WATTS _____ AMPS

TOTAL CONNECTED LOADS: 50272 WATTS 140 AMPS

PANEL LPA

AMPS 225 MAIN LUGS

VOLTS 120/208 PHASE 3

MOUNTING LOCATION

BRKR A	BRKR P	DESCRIPTION	CIRCUIT WATT	CIRCUIT NO.	PHASELOADS A	PHASELOADS B	PHASELOADS C	CIRCUIT NO.	CIRCUIT WATT	DESCRIPTION	BRKR A	BRKR P
20	1	LIGHTS	832	1	2092			2	1260	RECEPTACLES	20	1
20	1	SPARE		3		1440		4	1440	RECEPTACLES	20	1
20	1	SPARE		5			800	6	800	RECEPTACLES	20	1
20	1	EWC	1800	7	3420			8	1620	RECEPTACLES	20	1
20	1	CLOCK	500	9		1400		10	900	RECEPTACLES	20	1
20	1	PLBG. EQUIP TRANS	500	11			1440	12	1440	RECEPTACLES	20	1
20	1	SCALE TUMMEL	500	13				14	900	RECEPTACLES	20	1
20	1	LIGHTS	1200	15				16				
20	1	LIGHTS	1650	17				18				
20	1	BOLLARDS & POLE LIGHTS	1350	19				20				
20	1	PARKING LOT LIGHT	500	21				22				
				23				24				
				25				26				
				27				28				
				29				30				
				31				32				
				33				34				
				35				36				
				37				38				
		–		39				40				
		–		41			–	42				
					5512	2890	2240					

ESTIMATED DEMAND LOAD: _____ WATTS _____ AMPS

TOTAL CONNECTED LOADS: 10592 WATTS 30 AMPS

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI

ELECTRICAL PANEL SCHEDULES

DATE: 04/01/14 FINAL

STATE PROJECT NUMBER: 1190-43-71 | HWY: USH 2/ 53 | COUNTY: DOUGLAS | SUPERIOR SAFETY & WEIGHT FACILITY NO. 71 | SCALE, FEET 0

SHEET NO: E601 | DOT #

ELECTRICAL MOTOR/EQUIPMENT SCHEDULE

TAG	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PANEL NO.	EMA	EMA	EMA	EMA	EMA	EMA	EMA	PPA	PPA	PPA	PPA	PPA	PPA	PPA	PPA	NOT USED	NOT USED	EMA	EMA	EMA	EMA	EMA	EMA	EMA
CIRCUIT	65-67-69	71-73-75	62-64-66	68-70-72	27-29	35	39	2	4	6	8	10	16	18	1-3-5			16	18	23	25	31	58	60
BREAKER	45	35	175	40	30	20	20	20	20	20	20	20	20	20	60			125	40	20	20	20	20	20
POLE	3	3	3	3	2	1	1	1	1	1	1	1	1	1	3			3	3	1	1	1	1	1
WIRING NO. ①	3+G	3+G	3+G	3+G	2+G	2+G	2+G	2+G	2+G	2+G	2+G	2+G	2+G	2+G	3+G			3+G	3+G	2+G	2+G	2+G	2+G	2+G
TYPE	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU	THHN/CU			THHN/CU	THHN/CU	THHW/CU	THHW/CU	THHW/CU	THHW/CU	THHW/CU
SIZE	#6	#8	#3/0	#6	#10	#12	#12	#12	#12	#12	#12	#12	#12	#12	#4			#1/0	#6	#12	#12	#12	#12	#12
COND.	3/4"	3/4"	2"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"			1 1/2"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
ELECTRICAL HP (KW)													1/3	FRACT.	10					10	10	10	1/3	1/3
VOLT	208	208	208	208	208	120	120	120	120	120	120	120	120	120	208			208	208	120	120	120	120	120
PHASE	3	3	3	3	1	1	1	1	1	1	1	1	1	1	3			3	3	1	1	1	1	1
FLA (MCA)	24.6	20.5	124	6.9	22.0	6.0	4.4	4.4	4.4	1.4	1.4	2.0	7.2	1.6				73.9	24.2					
STARTER TYPE	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT	W/UNIT			W/UNIT	W/UNIT	AT UNIT	AT UNIT	AT UNIT	AT UNIT	AT UNIT
SIZE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-					
BY	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	E.C.	E.C.	E.C.			HC	H.C.	HC	HC	HC	PC	PC
CONTROL TYPE	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.			B.A.S.	B.A.S.	B.A.S.	B.A.S.	B.A.S.		
BY	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.	H.C.			H.C.	H.C.	H.C.	H.C.	H.C.	PC	PC
DISCONNECT TYPE	HD NEMA 1	HD NEMA 1	HD NEMA 1	HD NEMA 1	HD NEMA 3R	F.T.S. NEMA 3R	F.T.S. NEMA 1	F.T.S. NEMA 1	F.T.S. NEMA 1	F.T.S. NEMA 1	F.T.S. W/UNIT	F.T.S. W/UNIT	F.T.S. NEMA 1	F.T.S. NEMA 1	HD NEMA 3R			HD NEMA 1	HD NEMA 1	F.T.S. NEMA 1	F.T.S. NEMA 1	F.T.S. NEMA 1	F.T.S. NEMA 1	F.T.S. NEMA 1
SIZE	60A	60A	200A	30A	30A	30A	30A	30A	30A	30A	30A	30A	30A	30A	60A			200A	60A	30A	30A	30A	30A	30A
FUSE	45	35	125	10	30A	20A	6.25A	6.25A	6.25	6.25	6.25	6.25	10	6.25	50			125A	40A	6.25A	6.25A	6.25A	10A	10A
BY	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.	E.C.			E.C.	E.C.	EC	E.C.	E.C.	E.C.	E.C.
REMARKS	HEAT PUMP-1	HEAT PUMP-2	ERH-1	ERV-1	CU-3	B-1 BOILER	CIRC. PUMP BOILER	RAD HEAT	RAD HEAT	EF-1	EF-2	EF-3	EF-7	EF-8	WELL PUMP			WH-1	WH-2	P-1	P-2	P-3	PLBG PUMP	PLBG PUMP

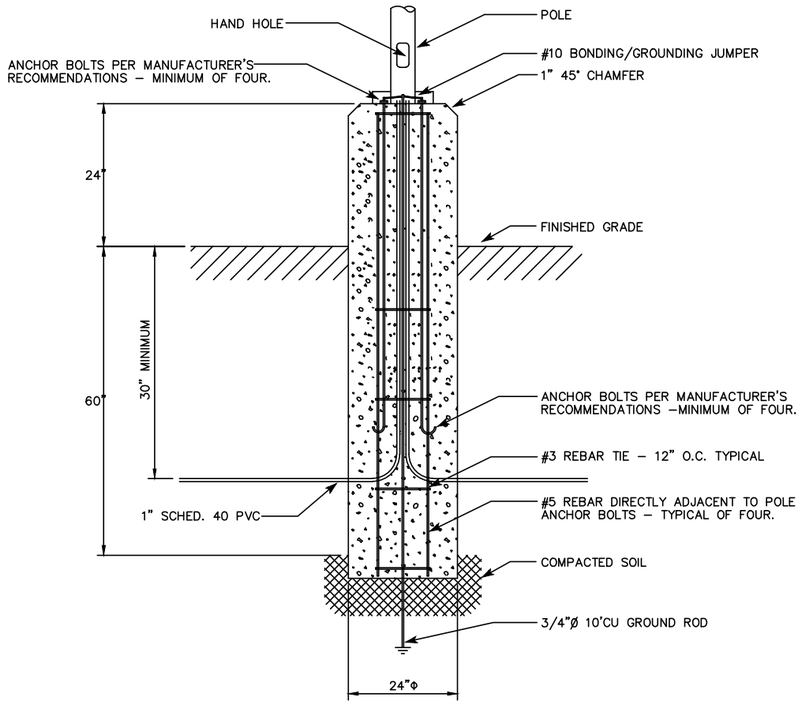
E.C. = ELECTRICAL CONTRACTOR
H.C. = HVAC CONTRACTOR
P.C. = PLUMBING CONTRACTOR
G.C. = GENERAL CONTRACTOR

HOA = HAND-OFF-AUTO SWITCH
T.S = TOGGLE SWITCH
F.T.S. = FUSED TOGGLE SWITCH
FVNR = FULL VOLTAGE NON-REVERSING
COMB S/D = COMBINATION STARTER/DISCONNECT

MAG. = MAGNETIC STARTER
H.D. = HEAVY DUTY
P.L. = PILOT LIGHT
M.S. = MANUAL STARTER
B.A.S. = BUILDING AUTOMATION SYSTEM

① PROVIDE GREEN WIRE GROUND TO ALL MOTORS AND EQUIPMENT PER NEC 250-95.

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ELECTRICAL MOTOR SCHEDULE	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: E602 / DOT #



48 POLE BASE

SCALE: NTS

PANEL EMA 84 POLE

AMPS 600 MAIN LUGS

VOLTS 120/208 PHASE 3

MOUNTING LOCATION

BRKR A	BRKR P	DESCRIPTION	CIRCUIT WATT	CIRCUIT NO.	PHASELOADS A	PHASELOADS B	PHASELOADS C	CIRCUIT NO.	CIRCUIT WATT	DESCRIPTION	BRKR A	BRKR P
20	1	LIGHTS	768	1	1488			2	720	RECEPTACLES	20	1
20	1	LIGHTS	768	3		1128		4	360	RECEPTACLES	20	1
20	1	LIGHTS	768	5			1668	6	900	RECEPTACLES	20	1
20	1	LIGHTS	1152	7	2052			8	900	RECEPTACLES	20	1
20	1	LIGHTS	1392	9		1892		10	900	RECEPTACLES	20	1
20	1	LIGHTS	1662	11			3372	12	1800	RECEPTACLES	20	1
20	1	FACP	1800	13	3600			14	1800	RECEPTACLES	20	1
20	1	REFRIGERATOR	1800	15		2880		16	1080	RECEPTACLES	20	1
20	1	COPIER	1800	17			2520	18	720	RECEPTACLES	20	1
20	1	FLAG LIGHT	1350	19	3150			20	1800	VENDING	20	1
20	1	CCTV CONTROLLER	1800	21		3600		22	1800	VENDING	20	1
20	1	CP–1	1800	23			3600	24	1800	RECEPTACLES	20	1
20	1	CP–2	1800	25	3600			26	1800	RECEPTACLES	20	1
30	2	CU–3	2945	27		5050		28	1800	RECEPTACLES	20	1
		"	2495	29			5050	30	1800	RECEPTACLES	20	1
20	2	CP–3	1800	31	5050			32	1800	RECEPTACLES	20	1
20	1	SPARE		33		5050		34	1800	RECEPTACLES	20	1
20	1	BOILER–B1	1800	35			3600	36	1800	RECEPTACLES	20	1
20	1	BOILER–B2	1800	37	3600			38	1800	TRACK LIGHT	20	1
20	1	BLR CIR PUMP	500	39		2300		40	1800	TRACK LIGHT	20	1
20	1	LIGHTS	768	41			1488	42	720	RECEPTACLES	20	1
20	1	HEAT TAPE	1800	43	3600			44	1800	MONITOR RECPT.	20	1
20	1	HEAT TAPE	1800	45		3600		46	1800	MONITOR RECPT.	20	1
20	1	HEAT TAPE	1800	47			3600	48	1800	MONITOR RECPT.	20	1
20	1	HEAT TAPE	1800	49	3600			50	1800	MONITOR RECPT.	20	1
20	1	HEAT TAPE	1800	51		3600		52	1800	AMPLIFIER	20	1
20	1	HEAT TAPE	1800	53			1800	54	1800	RADIANT HEAT	20	1
20	1	HEAT TAPE	1800	55	1800			56	1800	RADIANT HEAT	20	1
20	1	HEAT TAPE	1800	57		1800		58	1800	CP–1	20	1
20	1	HEAT TAPE	1800	59			1800	60	1800	CP–2	20	1
20	1	HEAT TAPE	1800	61	1800			52	7543	ERH–1	125	3
20	1	HEAT TAPE	1800	63		1800		64	7543	"		
45	3	HEAT PUMP–1	2960	65			10503	66	7543	"		
		" "	2960	67	3664			68	704	ERV–1	40	3
		" "	2960	69		3664		70	704	"		
35	3	HEAT PUMP–2	2439	71			3143	72	704	"		
		" "	2439	73	3143			74	704	WH–2	40	3
		" "	2439	75		3143		76	704	"		
125	3	WH–1	7543	77			8247	78	704	"		
		" "	7543	79				80			20	1
		" "	7543	81				82			20	1
					40147	39507	50392					

ESTIMATED DEMAND LOAD: _____ WATTS _____ AMPS

TOTAL CONNECTED LOADS: 130046 WATTS 361 AMPS

PLANS PREPARED BY: VANTAGE ARCHITECTS, INC. LA CROSSE, WI			ELECTRICAL PANEL SCHEDULE CON'T	DATE: 04/01/14	FINAL
STATE PROJECT NUMBER: 1190–43–71	HWY: USH 2/ 53	COUNTY: DOUGLAS	SUPERIOR SAFETY & WEIGHT FACILITY NO. 71	SCALE, FEET 0	SHEET NO: E603 / DOT #: 194

LEGEND

WORK ZONE

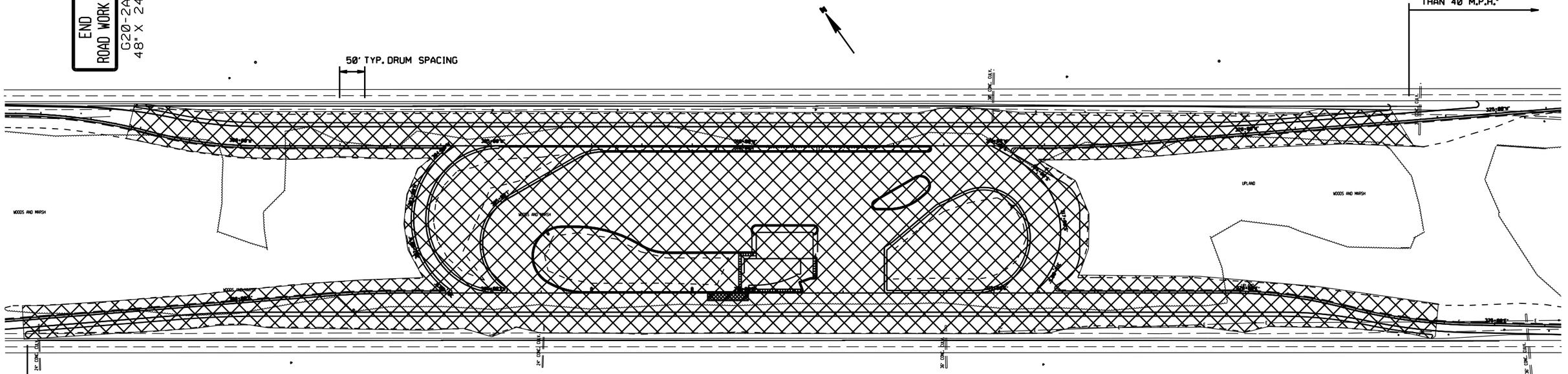
TRUCKS ENTERING & LEAVING
W8-6A
48" +48"

TO BE PLACED AT
STA. 280+00

END ROAD WORK
G20-2A
48" X 24"

50' TYP. DRUM SPACING

SEE S.D.D. "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H."



SEE S.D.D. "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H."

TRUCKS ENTERING & LEAVING
W8-6A
48" +48"

END ROAD WORK
G20-2A
48" X 24"

TO BE PLACED AT
STA. 365+00

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	TRAFFIC CONTROL - STAGE 1	SCALE, FEET 0	SHEET NO:	E

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49, 51, 53,54,55, 58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\025001_tc.dgn PLOT DATE : 19-DEC-2013 16:55 PLOT BY : dotres PLOT NAME : 025001 tc.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 194.705557:1.000000

WISDOT/CADDS SHEET 42

LEGEND

WORK ZONE

TO BE PLACED AT STA. 280+00

END ROAD WORK
G20-2A
48" X 24"

50' TYP. DRUM SPACING

SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

MATCH LINE 282+50"SB"

SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

MAINLINE WIM

W8-6A
48" x 48"
TRUCKS ENTERING & LEAVING

MATCH LINE 282+50"SB"

UPLAND

WOODS AND MARSH

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27, 28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47, 48,49, 51, 53,54,55, 58,59,60,61,62,63

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	TRAFFIC CONTROL - STAGE 2	SCALE, FEET	SHEET NO:	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\025002_tc.dgnPLOT DATE : 19-DEC-2013 17:13 PLOT BY : dotres PLOT NAME : 025002 tc.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 194.705896:1.000000

WISDOT/CADDS SHEET 42

LEGEND

WORK ZONE

SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

TRUCKS ENTERING & LEAVING

W8-6A 48" x 48"

MAINLINE WIM

MATCH LINE 340+50"NB"

SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

50' TYP. DRUM SPACING

UPLAND

WOODS AND MARSH

WOODS AND MARSH

ASPHALT

CONCRETE

CONCRETE SIDEWALK

SHED

BUILDING

SCALE

MATCH LINE 340+50"NB"

SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

END ROAD WORK

G20-2A 48" X 24"

TO BE PLACED AT STA. 365+00

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 58, 59, 60, 61, 62, 63

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	TRAFFIC CONTROL - STAGE 3	SCALE, FEET 0	SHEET NO:	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\025003_tc.dgn PLOT DATE : 20-DEC-2013 14:23 PLOT BY : dotres PLOT NAME : 025003 tc.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 194.705896:1.000000

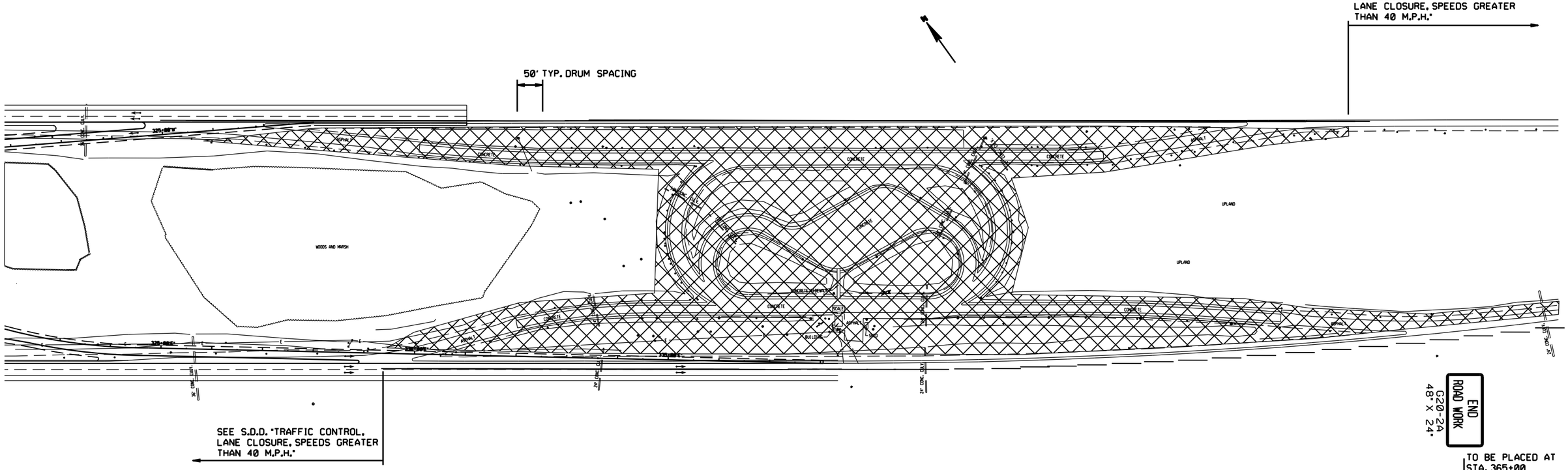
WISDOT/CADDS SHEET 42

LEGEND

WORK ZONE

SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

50' TYP. DRUM SPACING



SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

END ROAD WORK
G20-2A
48" X 24"

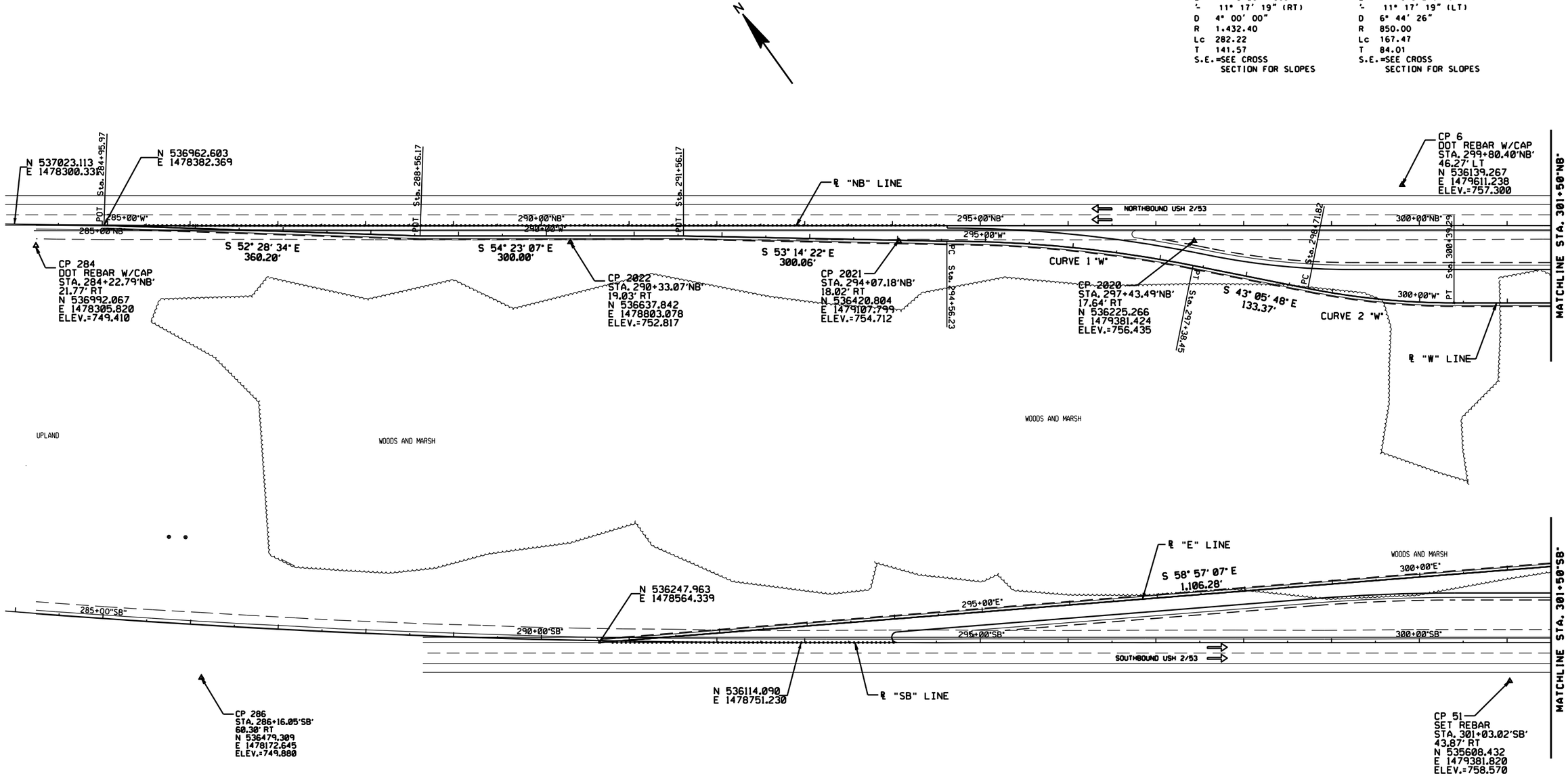
TO BE PLACED AT STA. 365+00

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	TRAFFIC CONTROL - STAGE 4	SCALE: FEET 0	SHEET NO: E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\025004_tc.dgn PLOT DATE : 20-DEC-2013 14:26 PLOT BY : dotres PLOT NAME : 025004 tc.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 194.705896:1.000000

WISDOT/CADDS SHEET 42

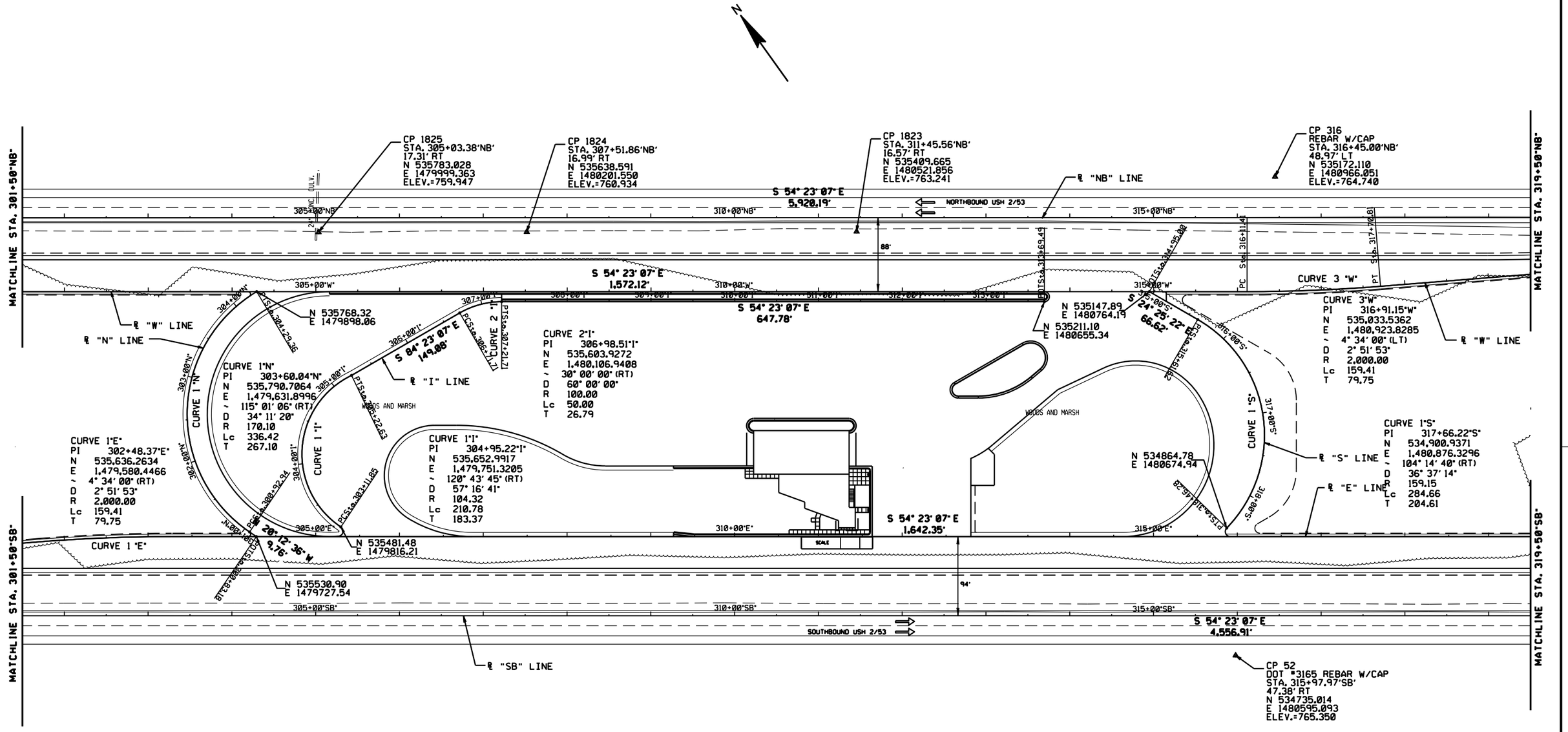
CURVE 1 "W"	CURVE 2 "W"
PI 295+97.80 "W"	PI 299+55.82 "W"
N 536,306.4924	N 536,044.3916
E 1,479,267.4065	E 1,479,512.6476
Δ 11° 17' 19" (RT)	Δ 11° 17' 19" (LT)
D 4° 00' 00"	D 6° 44' 26"
R 1,432.40	R 850.00
Lc 282.22	Lc 167.47
T 141.57	T 84.01
S.E.=SEE CROSS SECTION FOR SLOPES	S.E.=SEE CROSS SECTION FOR SLOPES



LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	ALIGNMENT PLAN	SCALE, FEET 0 60	SHEET NO: E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027201_ad.dgn PLOT DATE : 20-DEC-2013 14:38 PLOT BY : dotres PLOT NAME : 027201 ad.dgn ORG DATE : Originator : Dist PLOT SCALE : 116.823547:1.000000
WISDOT/CADDS SHEET 42



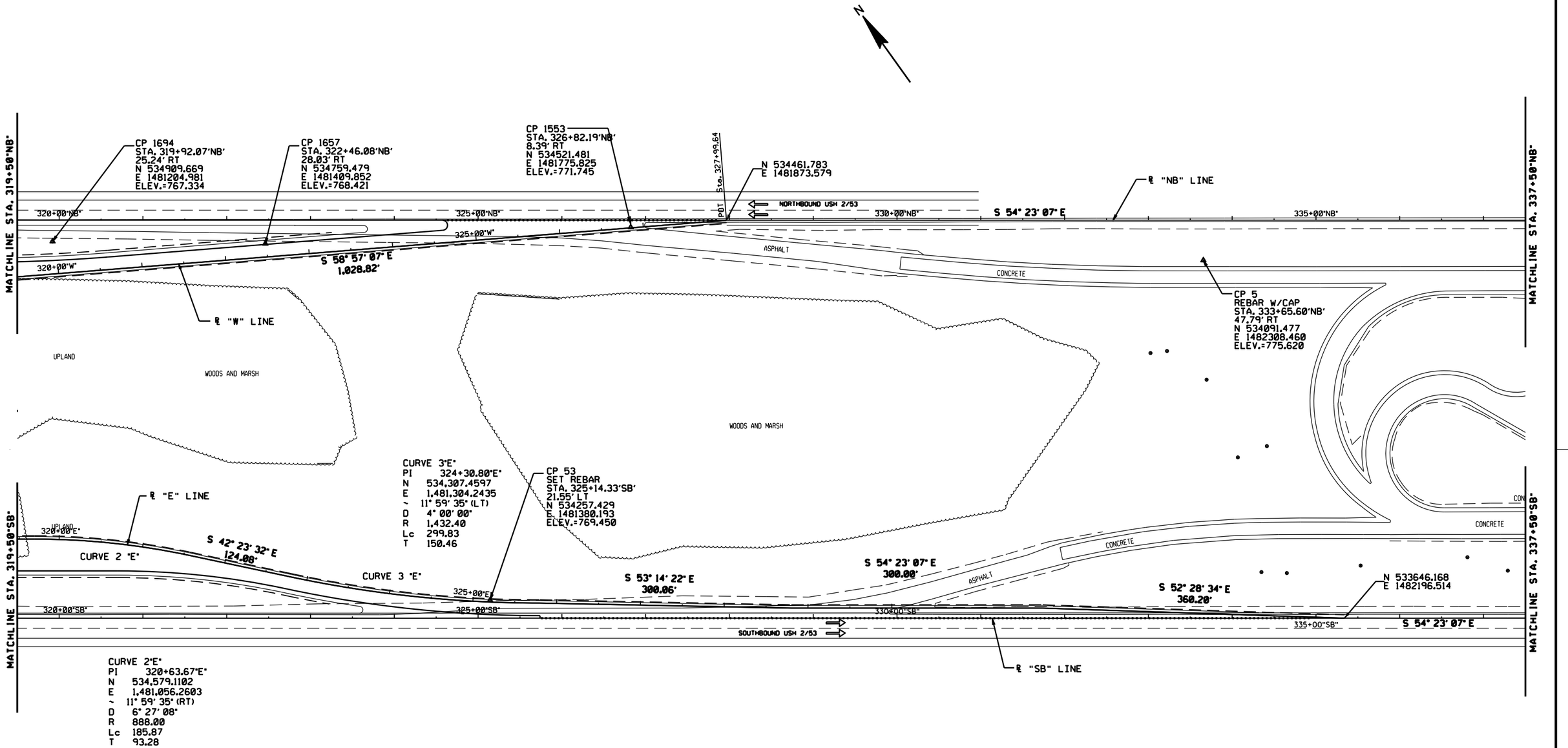
STATE PROJECT NUMBER:1190-43-71	HWY: SUPERIOR SWEF	COUNTY: DOUGLAS	ALIGNMENT PLAN	SCALE, FEET 0 60	SHEET NO: E

200

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\027202_ad.dgn PLOT DATE : 01-APR-2014 14:29 PLOT BY : dotres PLOT NAME : 027202 ad.dgn ORG DATE : Originator : BHM-Roadside Fac PLOT SCALE :116.823547:1.000000

WISDOT/CADDS SHEET 42



201

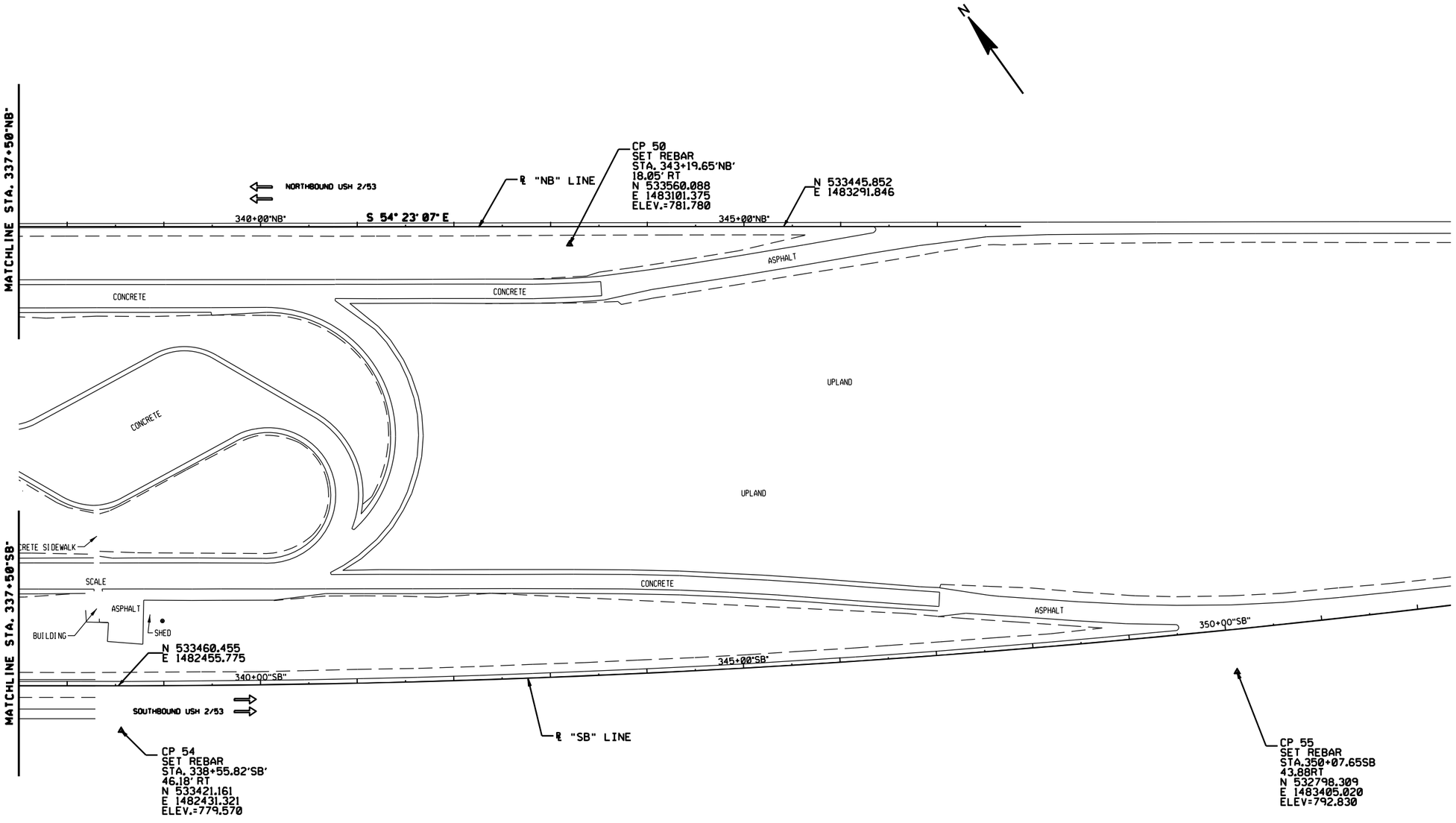
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	ALIGNMENT PLAN	SCALE, FEET 0 60	SHEET NO: E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27, 28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47, 48,49,50,51,52,53,54,55,56,57, 58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027203_ad.dgnPLOT DATE : 20-DEC-2013 15:34 PLOT BY : dotres PLOT NAME : 027203 ad.dgn ORG DATE : Originator : BHO-Roadside Fac PLOT SCALE :116.823334:1.000000

2

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

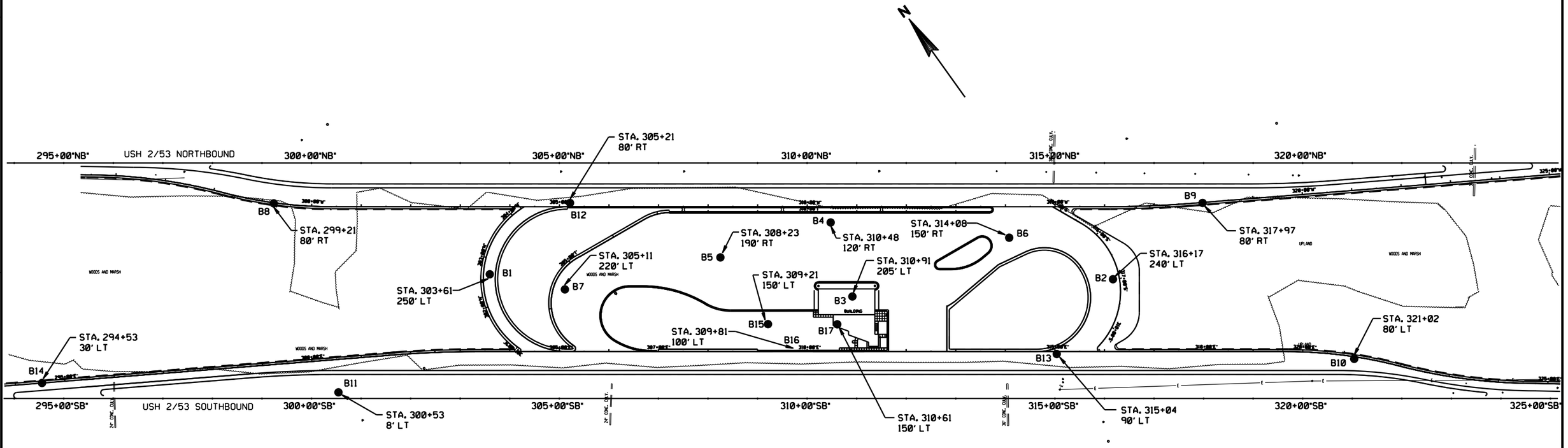


STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	ALIGNMENT PLAN	SCALE. FEET 0 60	SHEET NO: E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027204_ad.dgnPLOT DATE : 20-DEC-2013 15:37 PLOT BY : dotres PLOT NAME : 027204 ad.dgn ORG DATE : Originator : BHO PLOT SCALE :116.823334:1.000000

2

LEVELS ON - 1,2,3,4,5,6,7,8,9, 12,13,14,15,16,17,18,19,20,21,22,23,24, 26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48, 58,59,60,61,62,63

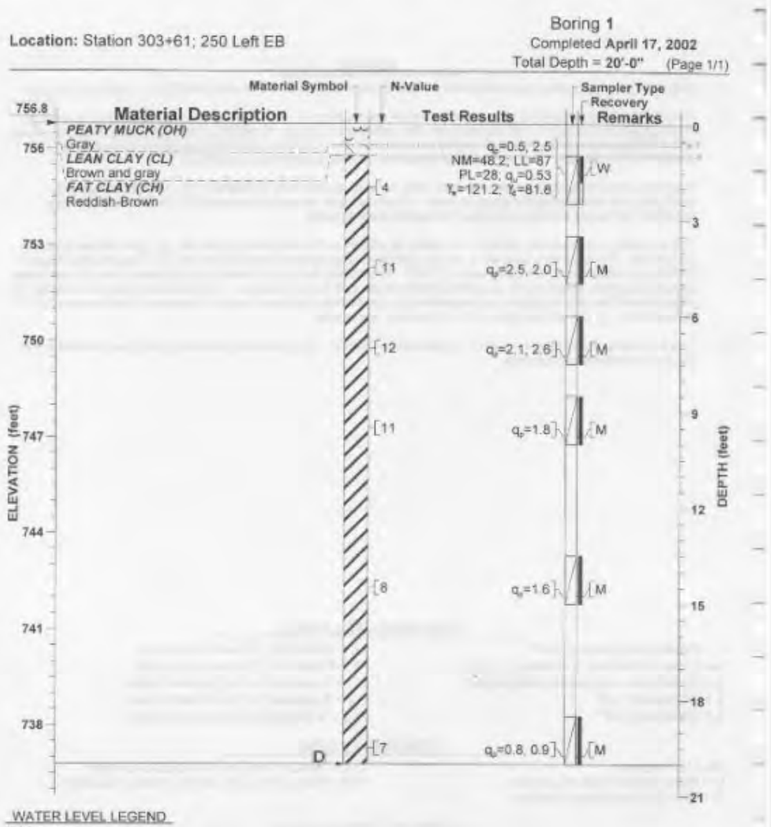


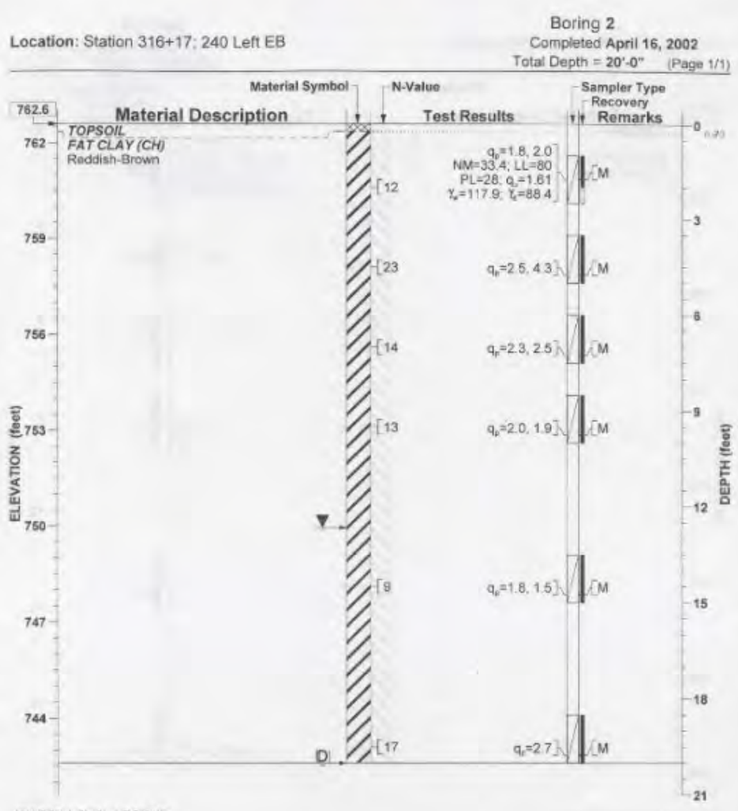
NOTE: ALL DISTANCES TO BORINGS ARE FROM EDGE OF EXISTING NORTHBOUND OR SOUTHBOUND USH 2/53 PAVEMENT.

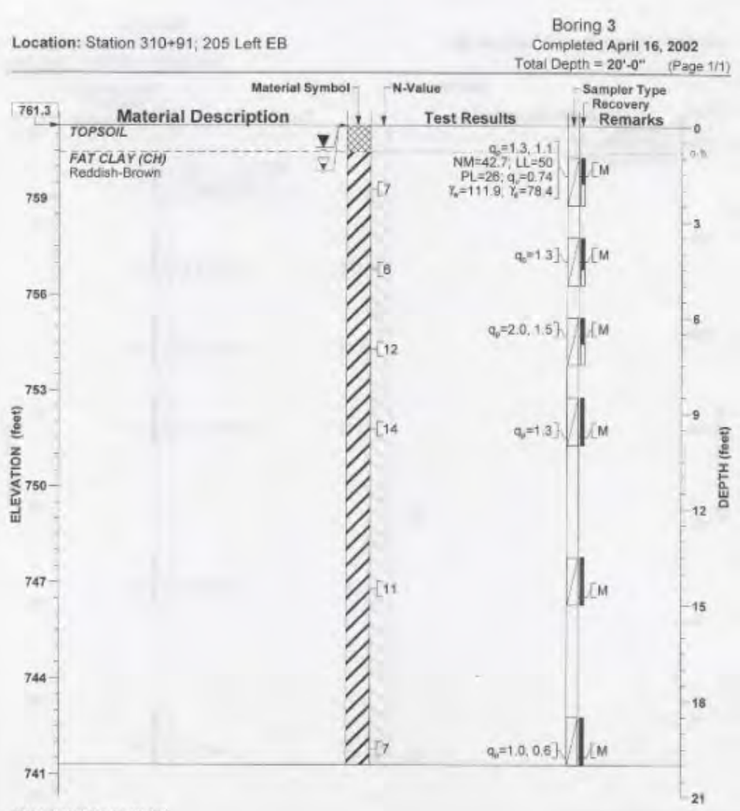
STATE PROJECT NUMBER: 1190-43-71	HWY: SUPERIOR SWEF	COUNTY: DOUGLAS	SOIL BORING LOCATIONS	SCALE, FEET	SHEET NO:	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027301_xx.dgn PLOT DATE : 26-DEC-2013 09:33 PLOT BY : dotres PLOT NAME : 027301 xx.dgn ORG DATE : Originator : Dist PLOT SCALE : 194.705896:1.000000

WISDOT/CADDS SHEET 42







STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SOIL BORINGS	SCALE, FEET	SHEET NO:	E

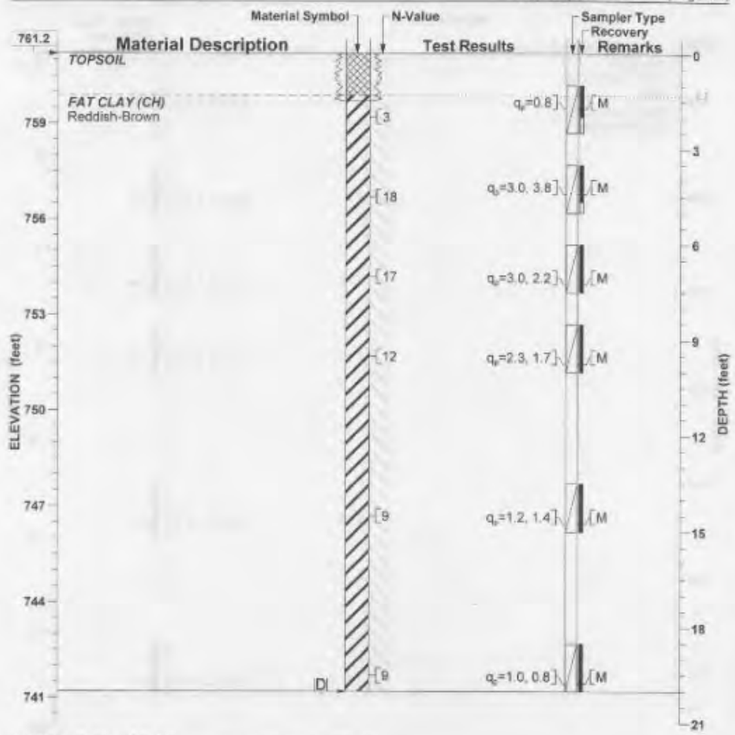
LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027302_xx.dgn PLOT DATE : 26-DEC-2013 10:00 PLOT BY : dotres PLOT NAME : 027302 xx.dgn ORG DATE : Originator : Dist PLOT SCALE :194.705896:1.000000

WISDOT/CADDS SHEET 42

Location: Station 310+48; 120 Right WB

Boring **4**
Completed **April 17, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
D 20'-0" Dry at completion

OTHER LEVEL LEGEND
Frozen, 0'-0" to 1'-6"

For Notes And Legend, see Drawing 12218-1.

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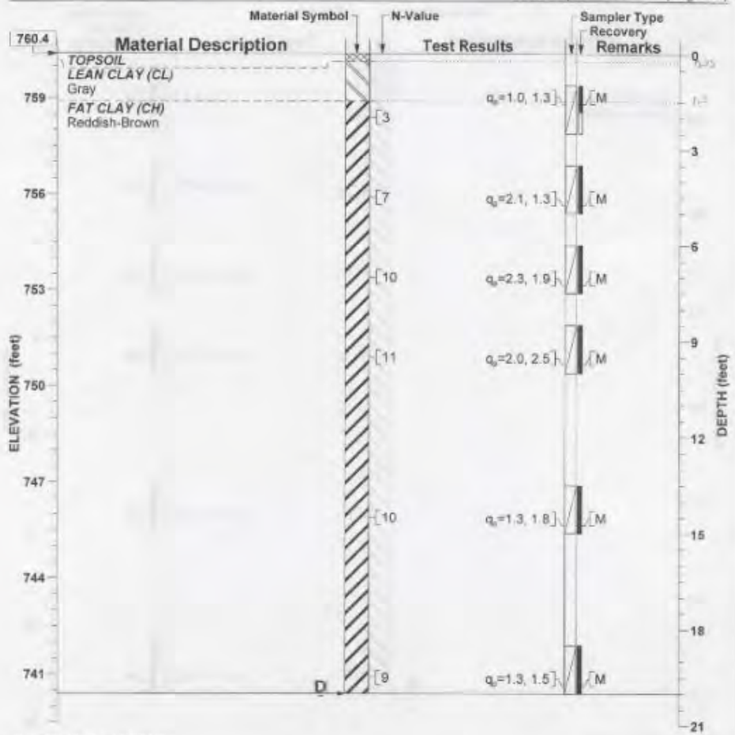
CONSULTING CIVIL ENGINEERS SINCE 1966

SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-5

Location: Station 308+23; 190 Right WB

Boring **5**
Completed **April 18, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
D 20'-0" Dry at completion

For Notes And Legend, see Drawing 12218-1.

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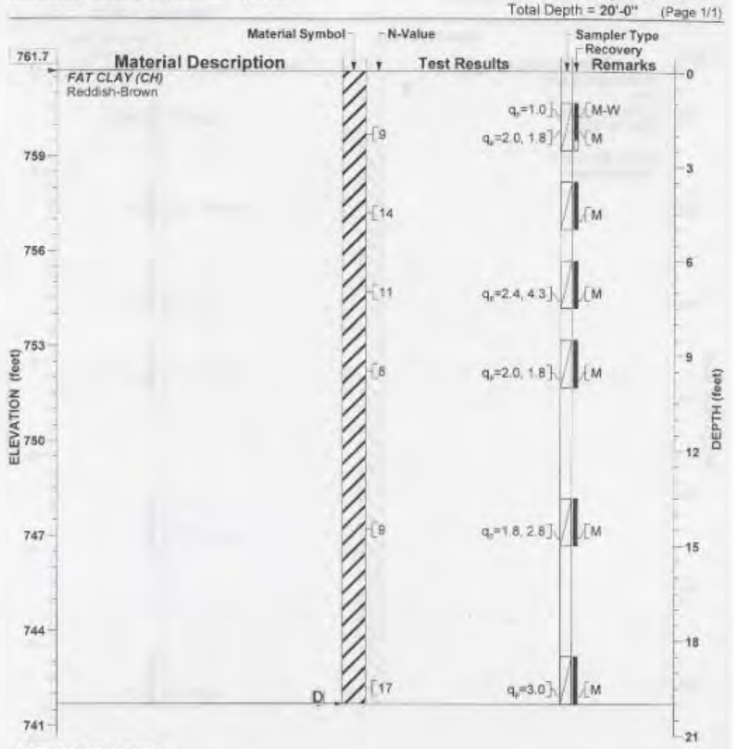
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-6

Location: Station 314+08; 150 Right WB

Boring **6**
Completed **April 17, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
D 20'-0" Dry at completion

For Notes And Legend, see Drawing 12218-1.

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Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

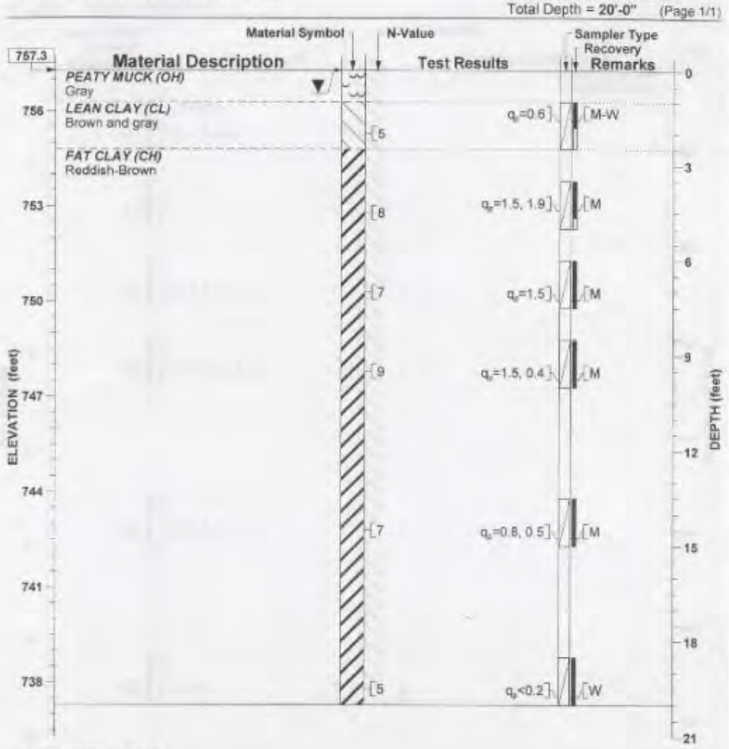
DRAWING 12218-7

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SOIL BORINGS	SCALE, FEET	SHEET NO:	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027303_xx.dgn PLOT DATE : 26-DEC-2013 09:57 PLOT BY : dotres PLOT NAME : 027303 xx.dgn ORG DATE : Originator : Dist PLOT SCALE :194.705896:1.000000
WISDOT/CADDS SHEET 42
LEVELS ON : 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

Location: Station 305+11; 220 Left EB

Boring 7
Completed **April 17, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 0'-0" at completion

For Notes And Legend, see Drawing 12218-1

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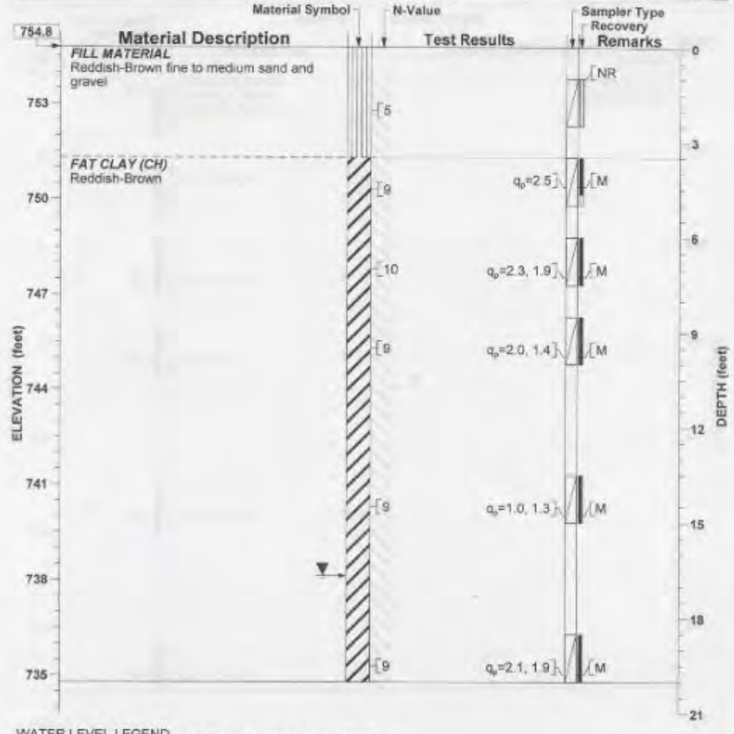
SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-8

Location: Station 299+21; 80 Right WB

Boring 8
Completed **April 18, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 16'-8" at completion

NOTE: Fill material is saturated and draining into borehole.

For Notes and Legend, see Drawing 12218-1

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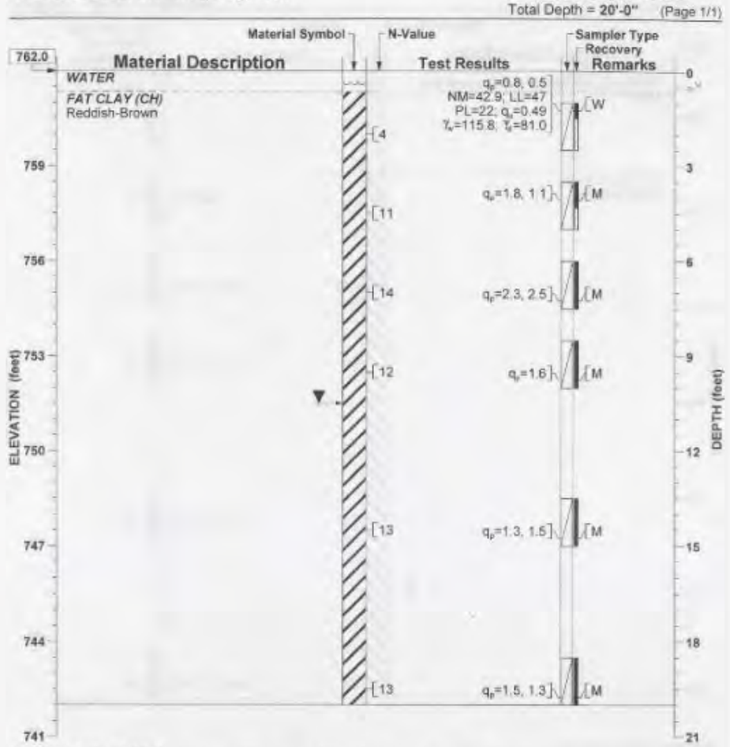
SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-9

Location: Station 317+97; 80 Right WB

Boring 9
Completed **April 17, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 10'-6" at completion

NOTE: Water running into borehole from surface.

For Notes and Legend, see Drawing 12218-1

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SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-10

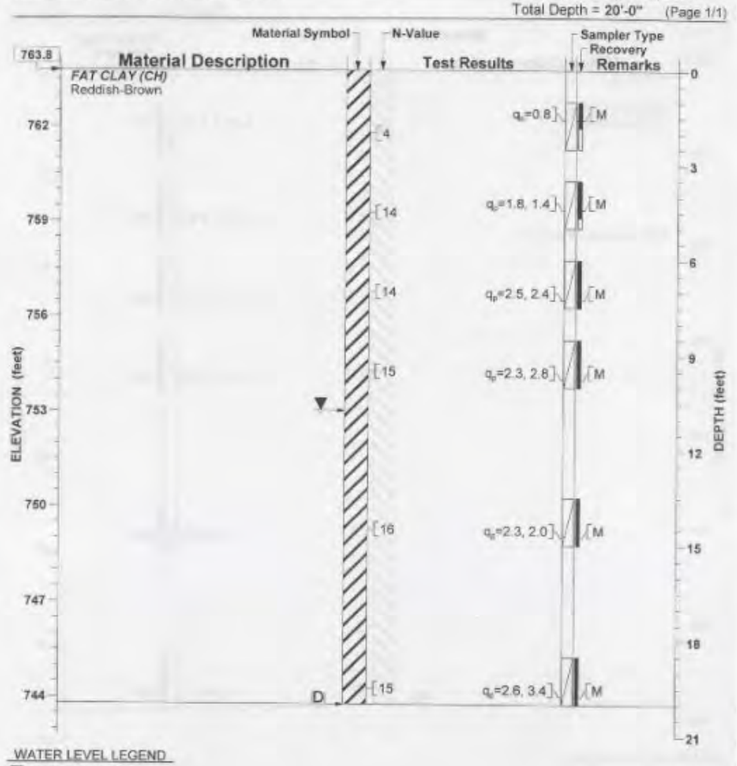
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SOIL BORINGS	SCALE, FEET 0	SHEET NO:	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027304_xx.dgn PLOT DATE : 26-DEC-2013 10:03 PLOT BY : dotres PLOT NAME : 027304 xx.dgn ORG DATE : Originator : Dist PLOT SCALE : 194.705896:1.000000
WISDOT/CADDS SHEET 42

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

Location: Station 321+02; 80 Left EB

Boring **10**
Completed **April 16, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 10'-9" at 36 hours
D 20'-0" Dry at completion

For Notes And Legend, see Drawing 12218-1.

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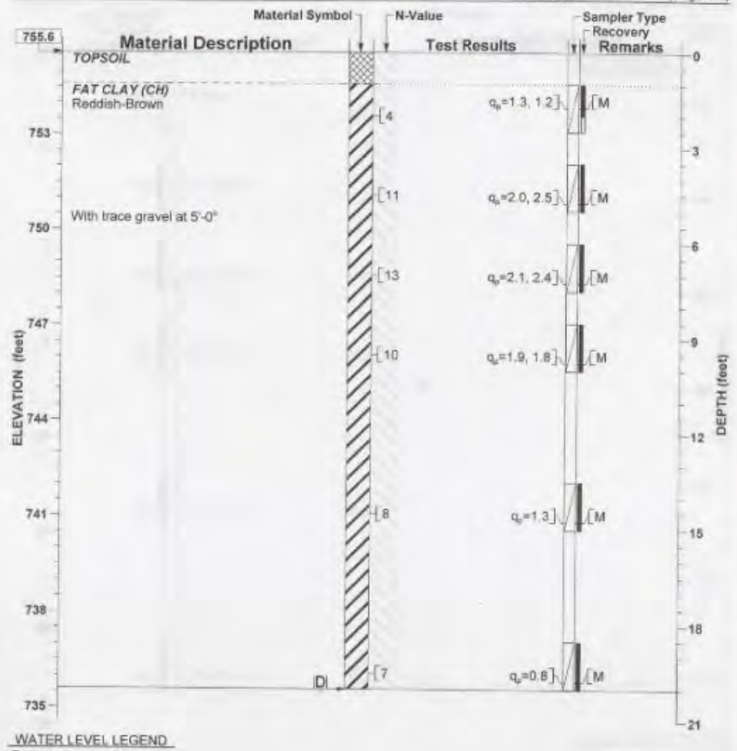
SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-11

Location: Station 300+53; 8 Left EB

Boring **11**
Completed **April 17, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
D 20'-0" Dry at completion

For Notes And Legend, see Drawing 12218-1.

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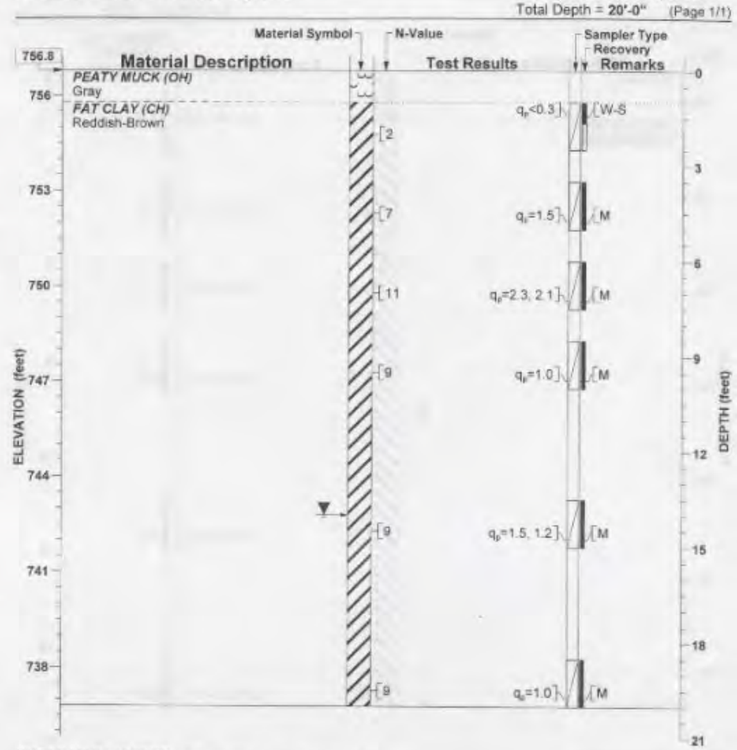
SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-12

Location: Station 305+21; 80 Right WB

Boring **12**
Completed **April 18, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 14'-0" at completion

NOTE: Water standing at surface.

For Notes And Legend, see Drawing 12218-1.

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SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-13

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SOIL BORINGS	SCALE: FEET	SHEET NO:	E

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

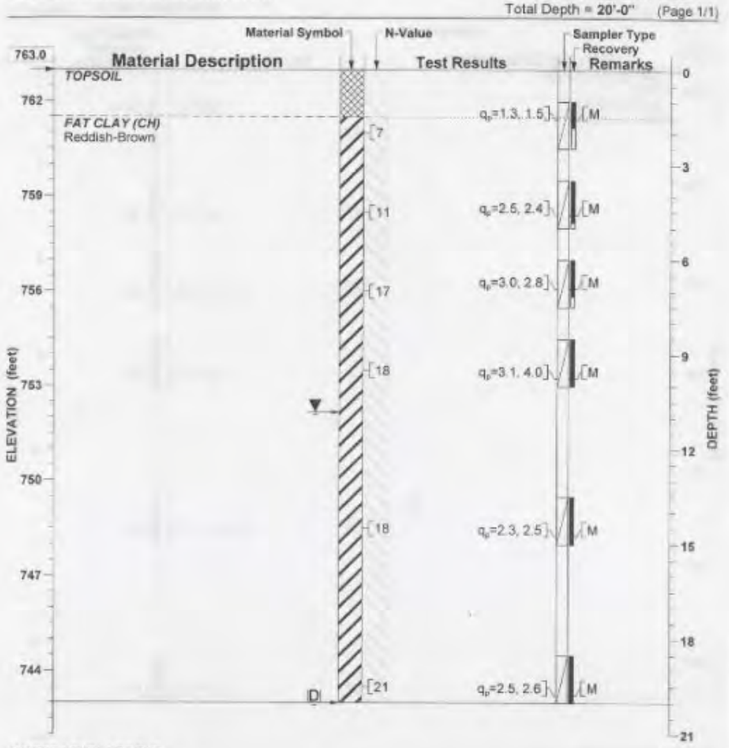
FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027305_xx.dgn PLOT DATE : 26-DEC-2013 10:52 PLOT BY : dotres PLOT NAME : 027305 xx.dgn ORG DATE : Originator : Dist PLOT SCALE :194.705896:1.000000

WISDOT/CADDS SHEET 42

LEVELS ON • 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17, 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

Location: Station 315+04; 90 Left EB

Boring **13**
Completed **April 16, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 10'-10" at 36 hours
D 20'-0" Dry at completion

For Notes And Legend, see Drawing 12218-1.

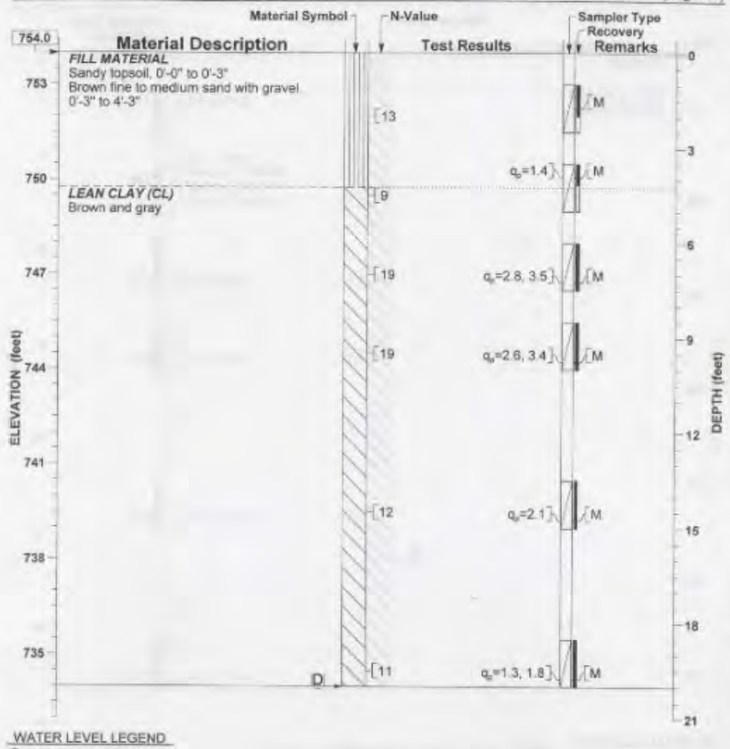
Soils & Engineering Services, Inc.
1102 STEWART STREET • MADISON, WISCONSIN 53713-4648
Phone: 608-274-7600 • 888-866-SOIL (7645)
Fax: 608-274-7511 • Email: soils@soils.ws
CONSULTING CIVIL ENGINEERS SINCE 1966

SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-14

Location: Station 294+53; 30 Left EB

Boring **14**
Completed **April 17, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
D 20'-0" Dry at completion

For Notes And Legend, see Drawing 12218-1.

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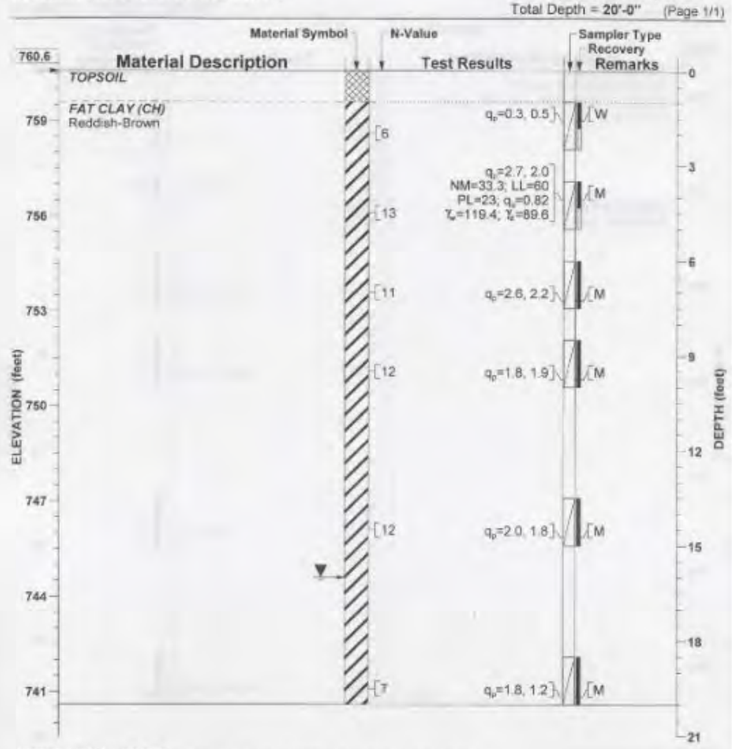
SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING 12218-15

Location: Station 309+21; 150 Left EB

Boring **15**
Completed **April 17, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 16'-0" at completion

NOTE: Water running into borehole from surface

For Notes and Legend, see Drawing 12218-1.

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SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

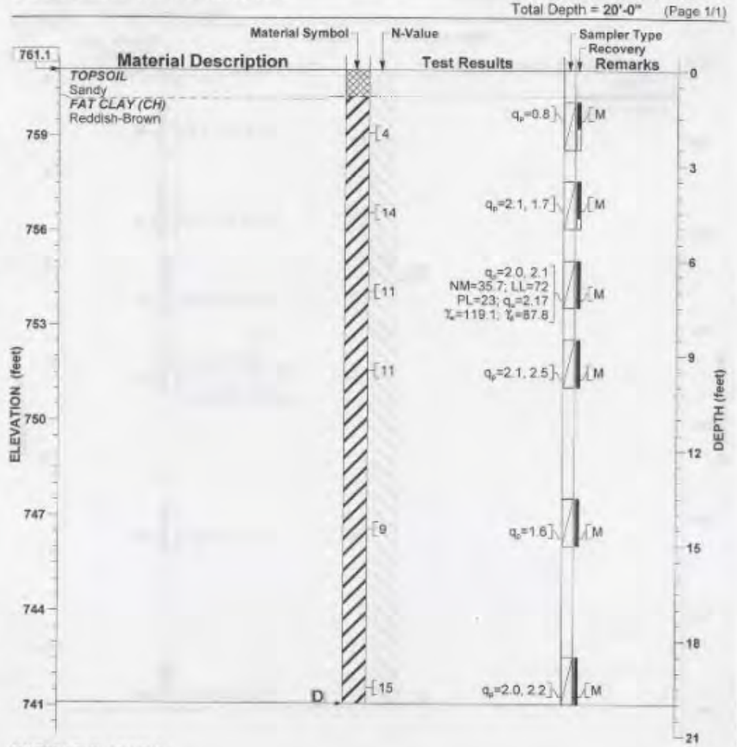
DRAWING 12218-16

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SOIL BORINGS	SCALE, FEET	SHEET NO:	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\027306_xx.dgn PLOT DATE : 26-DEC-2013 10:55 PLOT BY : dotres PLOT NAME : 027306 xx.dgn ORG DATE : Originator : BHO-ROADSIDE FAC PLOT SCALE :194.705896:1.000000
WISDOT/CADDS SHEET 42

Location: Station 309+81; 100 Left EB

Boring **16**
Completed **April 17, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
D 20'-0" Dry at completion

For Notes And Legend, see Drawing 12218-1.

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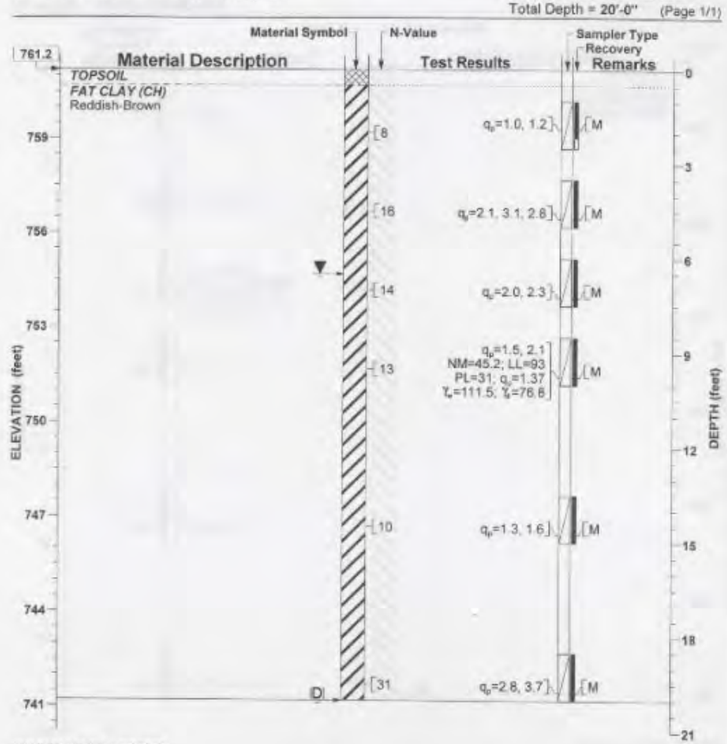
SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING
12218-17

Location: Station 310+61; 150 Left EB

Boring **17**
Completed **April 16, 2002**
Total Depth = **20'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 6'-6" at 36 hours
D 20'-0" Dry at completion

For Notes And Legend, see Drawing 12218-1.

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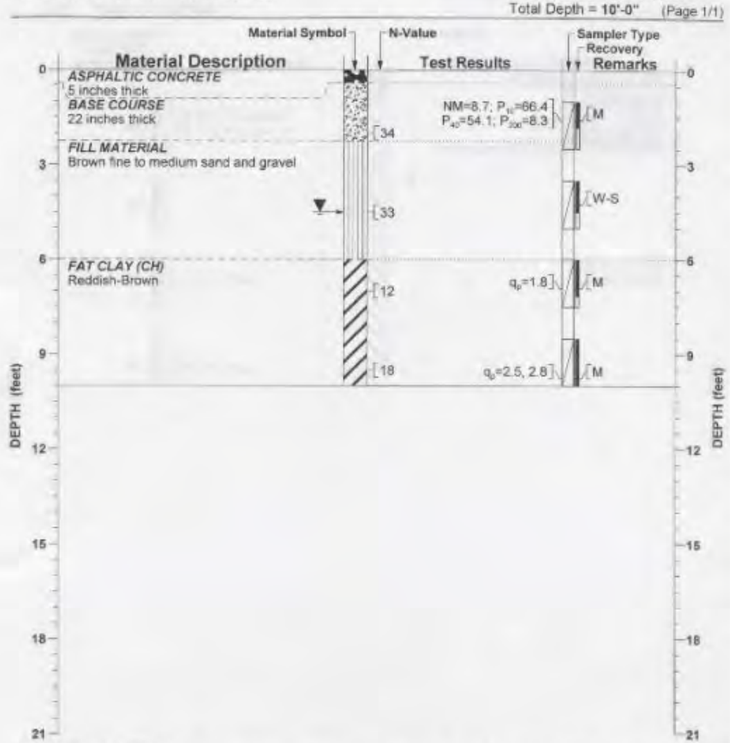
SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING
12218-18

Location: Station 261+45; 14 Left EB

Boring **18**
Completed **April 17, 2002**
Total Depth = **10'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 4'-6" at completion

NOTE: Ground surface at boring is 3 inches below ground surface at centerline.

For Notes and Legend, see Drawing 12218-1.

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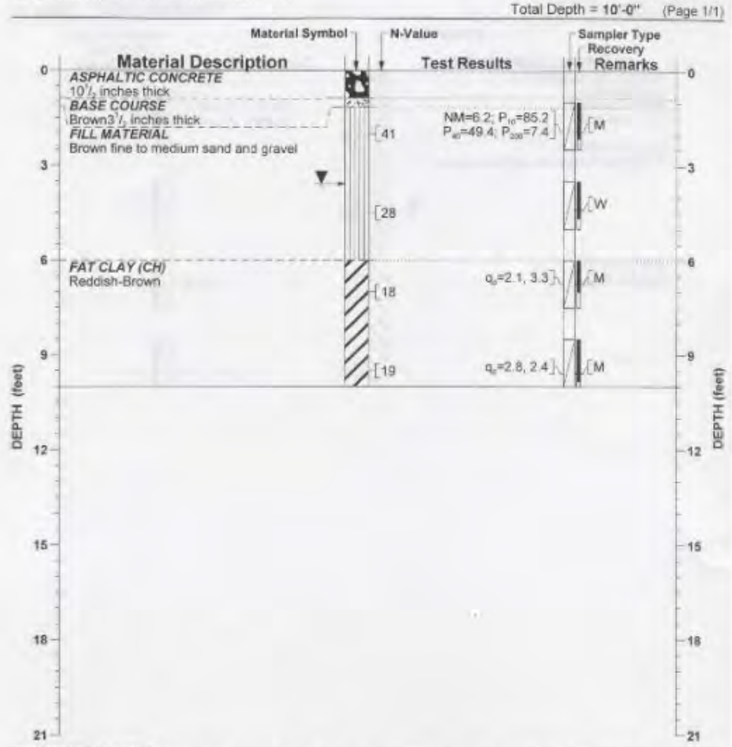
SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING
12218-19

Location: Station 352+35; 18 Right WB

Boring **19**
Completed **April 17, 2002**
Total Depth = **10'-0"** (Page 1/1)



WATER LEVEL LEGEND
▼ 3'-7" at completion

NOTE: Ground surface at boring is 8 inches below ground surface at centerline

For Notes and Legend, see Drawing 12218-1

Soils & Engineering Services, Inc.
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Fax: 608-274-7511 • Email: soils@soils.ws
CONSULTING CIVIL ENGINEERS SINCE 1966

SOIL BORING RECORD
Wentworth Safety and Weight Facility #71
Superior - Rockmont Road
USH 2/53
Douglas County, Wisconsin
WisDOT State Project ID 1190-43-00

DRAWING
12218-20

LEVELS ON - 1,2,3,4,5,6,7,8,9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

DATE 09SEP14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1190-43-71 QUANTITY
0010	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	7.000	7.000
0020	204.0100	REMOVING PAVEMENT	SY	11,100.000	11,100.000
0030	204.0155	REMOVING CONCRETE SIDEWALK	SY	40.000	40.000
0040	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	96.000	96.000
0050	204.0195	REMOVING CONCRETE BASES	EACH	23.000	23.000
0060	204.0220	REMOVING INLETS	EACH	2.000	2.000
0070	204.0225	REMOVING SEPTIC TANKS	EACH	1.000	1.000
0080	204.0230	REMOVING BUILDING (STATION) 01. 338"E"+40	LS	1.000	1.000
0090	204.0230	REMOVING BUILDING (STATION) 02. 338"E"+90	LS	1.000	1.000
0100	204.0265	ABANDONING WELLS	EACH	1.000	1.000
0110	204.9060.S	REMOVING (ITEM DESCRIPTION) 01. STATIC SCALE	EACH	1.000	1.000
0120	205.0100	EXCAVATION COMMON	CY	187,400.000	187,400.000
0130	208.1100	SELECT BORROW	CY	140,000.000	140,000.000
0140	209.0100	BACKFILL GRANULAR	CY	210.000	210.000
0150	213.0100	FINISHING ROADWAY (PROJECT) 01. 1190-43-71	EACH	1.000	1.000
0160	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	32,100.000	32,100.000
0170	415.0100	CONCRETE PAVEMENT 10-INCH	SY	41,550.000	41,550.000
0180	415.0110	CONCRETE PAVEMENT 11-INCH	SY	270.000	270.000
0190	415.0210	CONCRETE PAVEMENT GAPS	EACH	4.000	4.000
0200	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	70.000	70.000
0210	416.0610	DRILLED TIE BARS	EACH	1,635.000	1,635.000
0220	416.0620	DRILLED DOWEL BARS	EACH	224.000	224.000
0230	416.1010	CONCRETE SURFACE DRAINS	CY	2.000	2.000
0240	455.0105	ASPHALTIC MATERIAL PG58-28	TON	100.000	100.000
0250	455.0605	TACK COAT	GAL	110.000	110.000
0260	460.1101	HMA PAVEMENT TYPE E-1	TON	1,660.000	1,660.000
0270	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	8,390.000	8,390.000
0280	465.0305	ASPHALTIC SURFACE SAFETY ISLANDS	TON	156.000	156.000
0290	465.0400	ASPHALTIC SHOULDER RUMBLE STRIPS	LF	2,400.000	2,400.000
0300	520.8000	CONCRETE COLLARS FOR PIPE	EACH	3.000	3.000
0310	522.0318	CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	180.000	180.000
0320	522.0324	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	380.000	380.000
0330	522.0336	CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH	LF	105.000	105.000
0340	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	1.000	1.000
0350	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	4.000	4.000
0360	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	10.000	10.000
0370	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	1.000	1.000
0380	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	4.000	4.000
0390	602.0410	CONCRETE SIDEWALK 5-INCH	SF	1,850.000	1,850.000
0400	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	16.000	16.000
0410	606.0200	RIPRAP MEDIUM	CY	27.000	27.000
0420	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	100.000	100.000

3

DATE 09SEP14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1190-43-71 QUANTITY
0430	608.0415	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	LF	380.000	380.000
0440	608.0424	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	345.000	345.000
0450	608.0430	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 30-INCH	LF	175.000	175.000
0460	611.0606	INLET COVERS TYPE B	EACH	2.000	2.000
0470	611.0612	INLET COVERS TYPE C	EACH	1.000	1.000
0480	611.0624	INLET COVERS TYPE H	EACH	4.000	4.000
0490	611.2004	MANHOLES 4-FT DIAMETER	EACH	2.000	2.000
0500	611.3220	INLETS 2X2-FT	EACH	1.000	1.000
0510	611.3230	INLETS 2X3-FT	EACH	4.000	4.000
0520	614.2300	MGS GUARDRAIL 3	LF	848.000	848.000
0530	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
0540	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	4.000	4.000
0550	616.0700.S	FENCE SAFETY	LF	400.000	400.000
0560	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1190-43-71	EACH	1.000	1.000
0570	619.1000	MOBILIZATION	EACH	1.000	1.000
0580	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	72.000	72.000
0590	625.0100	TOPSOIL	SY	3,000.000	3,000.000
0600	625.0500	SALVAGED TOPSOIL	SY	37,200.000	37,200.000
0610	627.0200	MULCHING	SY	39,000.000	39,000.000
0620	628.1104	EROSION BALES	EACH	50.000	50.000
0630	628.1504	SILT FENCE	LF	6,590.000	6,590.000
0640	628.1520	SILT FENCE MAINTENANCE	LF	6,590.000	6,590.000
0650	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0660	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	4.000	4.000
0670	628.2002	EROSION MAT CLASS I TYPE A	SY	10,000.000	10,000.000
0680	628.7005	INLET PROTECTION TYPE A	EACH	2.000	2.000
0690	628.7010	INLET PROTECTION TYPE B	EACH	1.000	1.000
0700	628.7015	INLET PROTECTION TYPE C	EACH	4.000	4.000
0710	628.7504	TEMPORARY DITCH CHECKS	LF	280.000	280.000
0720	628.7555	CULVERT PIPE CHECKS	EACH	28.000	28.000
0730	629.0210	FERTILIZER TYPE B	CWT	25.000	25.000
0740	630.0180	SEEDING MIXTURE NO. 80	LB	700.000	700.000
0750	630.0400	SEEDING NURSE CROP	LB	600.000	600.000
0760	631.1000	SOD LAWN	SY	700.000	700.000
0770	632.0101	TREES (SPECIES, ROOT, SIZE) 01. PIN CHERRY, 8-FOOT HEIGHT	EACH	3.000	3.000
0780	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 01. SWEETFERN, 1-GALLON	EACH	45.000	45.000
0790	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 02. DWARF PINK PAVEMENT ROSE, 2-GALLON	EACH	17.000	17.000
0800	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 03. GRO-LOW FRAGRANT SUMAC, 18-INCH SPREAD	EACH	97.000	97.000
0810	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES 01. 14-DAY INTERVALS	EACH	24.000	24.000
0820	633.0200	DELINEATORS FLEXIBLE	EACH	200.000	200.000
0830	633.5200	MARKERS CULVERT END	EACH	20.000	20.000
0840	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	32.000	32.000
0850	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	21.000	21.000
0860	634.0620	POSTS WOOD 4X6-INCH X 20-FT	EACH	13.000	13.000
0870	635.0200	SIGN SUPPORTS STRUCTURAL STEEL HS	LB	2,280.000	2,280.000
0880	636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	11.000	11.000

3

DATE 09SEP14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1190-43-71 QUANTITY
0890	636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	664.000	664.000
0900	637.1210	SIGNS TYPE I REFLECTIVE H	SF	201.000	201.000
0910	637.2210	SIGNS TYPE II REFLECTIVE H	SF	1,376.000	1,376.000
0920	638.2602	REMOVING SIGNS TYPE II	EACH	34.000	34.000
0930	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	35.000	35.000
0940	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000
0950	642.6001	FIELD LABORATORY	EACH	1.000	1.000
0960	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1190-43-71	EACH	1.000	1.000
0970	643.0300	TRAFFIC CONTROL DRUMS	DAY	36,855.000	36,855.000
0980	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	286.000	286.000
0990	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	4,576.000	4,576.000
1000	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	572.000	572.000
1010	643.0900	TRAFFIC CONTROL SIGNS	DAY	4,832.000	4,832.000
1020	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	143.000	143.000
1030	645.0130	GEOTEXTILE FABRIC TYPE R	SY	180.000	180.000
1040	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	87,860.000	87,860.000
1050	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	28,390.000	28,390.000
1060	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	1,690.000	1,690.000
1070	646.0600	REMOVING PAVEMENT MARKINGS	LF	6,060.000	6,060.000
1080	647.0256	PAVEMENT MARKING SYMBOLS EPOXY	EACH	6.000	6.000
1090	647.0456	PAVEMENT MARKING CURB EPOXY	LF	155.000	155.000
1100	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	56.000	56.000
1110	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	2.000	2.000
1120	647.0656	PAVEMENT MARKING PARKING STALL EPOXY	LF	3,130.000	3,130.000
1130	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	2,890.000	2,890.000
1140	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	140.000	140.000
1150	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	4,680.000	4,680.000
1160	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	32.000	32.000
1170	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	10,500.000	10,500.000
1180	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	2,320.000	2,320.000
1190	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	12.000	12.000
1200	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	10,500.000	10,500.000
1210	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 1190-43-71	LS	1.000	1.000
1220	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1190-43-71	LS	1.000	1.000
1230	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	5,000.000	5,000.000
1240	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	10,600.000	10,600.000
1250	652.0340	CONDUIT RIGID NONMETALLIC SCHEDULE 80 4-INCH	LF	1,000.000	1,000.000
1260	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	5.000	5.000
1270	654.0105	CONCRETE BASES TYPE 5	EACH	38.000	38.000
1280	654.0200	CONCRETE CONTROL CABINET BASES TYPE 6	EACH	1.000	1.000
1290	655.0620	ELECTRICAL WIRE LIGHTING 8 AWG	LF	17,200.000	17,200.000
1300	655.0625	ELECTRICAL WIRE LIGHTING 6 AWG	LF	14,940.000	14,940.000
1310	655.0630	ELECTRICAL WIRE LIGHTING 4 AWG	LF	19,450.000	19,450.000
1320	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. OPERATIONS BUILDING	LS	1.000	1.000
1330	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	38.000	38.000
1340	657.0322	POLES TYPE 5-ALUMINUM	EACH	38.000	38.000

3

DATE 09SEP14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1190-43-71 QUANTITY
1350	657.0710	LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT	EACH	41.000	41.000
1360	659.1125	LUMINAIRES UTILITY LED C	EACH	41.000	41.000
1370	690.0150	SAWING ASPHALT	LF	200.000	200.000
1380	690.0250	SAWING CONCRETE	LF	5,000.000	5,000.000
1390	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	12,500.000	12,500.000
1400	SPV.0005	SPECIAL 01. CLEARING AND GRUBBING FOR NEW FACILITY	ACRE	15.000	15.000
1410	SPV.0005	SPECIAL 02. FINAL SHAPING & FINISHING RESTORATION SITE	ACRE	13.000	13.000
1420	SPV.0055	SPECIAL 01. TELEPHONE SERVICE, SUPERIOR SWEF	DOL	1,000.000	1,000.000
1430	SPV.0055	SPECIAL 02. ELECTRICAL SERVICE, SUPERIOR SWEF	DOL	5,000.000	5,000.000
1440	SPV.0060	SPECIAL 03. TRASH RECEPTACLES	EACH	3.000	3.000
1450	SPV.0060	SPECIAL 04. LAMP DISPOSAL HIGH INTENSITY	EACH	23.000	23.000
1460	SPV.0060	SPECIAL 05. REMOVING LIGHT POLES	EACH	23.000	23.000
1470	SPV.0060	SPECIAL 06. REMOVING LP TANK	EACH	1.000	1.000
1480	SPV.0060	SPECIAL 07. UNDERGROUND LP TANKS AND PIPING	EACH	3.000	3.000
1490	SPV.0060	SPECIAL 08. LIGHTING CONTROL CABINET TYPE WLP	EACH	1.000	1.000
1500	SPV.0060	SPECIAL 09. PERENNIALS BLACK-EYED SUSAN 1-GALLON	EACH	376.000	376.000
1510	SPV.0060	SPECIAL 10. PERENNIALS PRAIRIE BLAZINGSTAR 4-INCH POT	EACH	120.000	120.000
1520	SPV.0060	SPECIAL 11. GRASSES LITTLE BLUESTEM 4-INCH POT	EACH	1,640.000	1,640.000
1530	SPV.0060	SPECIAL 12. GRASSES PRAIRIE DROPSEED 4-INCH POT	EACH	822.000	822.000
1540	SPV.0085	SPECIAL 01. SEEDING WETLAND	LB	73.500	73.500
1550	SPV.0090	SPECIAL 01. CONCRETE CURB TYPE SPECIAL	LF	275.000	275.000
1560	SPV.0090	SPECIAL 02. CONCRETE CURB AND GUTTER 36-INCH TYPE A SPECIAL	LF	2,045.000	2,045.000
1570	SPV.0105	SPECIAL 01. REMOVING EXISTING SIGNAL EQUIPMENT	LS	1.000	1.000
1580	SPV.0105	SPECIAL 02. LIGHTNING PROTECTION AND GROUNDING SYSTEM	LS	1.000	1.000
1590	SPV.0105	SPECIAL 03. WELL PUMP AND CONTROLS	LS	1.000	1.000
1600	SPV.0105	SPECIAL 04. WEIGH-IN-MOTION SYSTEM	LS	1.000	1.000
1610	SPV.0105	SPECIAL 05. WEIGH-IN-MOTION SYSTEM WARRANTY MAINTENANCE	LS	1.000	1.000
1620	SPV.0105	SPECIAL 06. STATIC SCALE SYSTEM	LS	1.000	1.000
1630	SPV.0105	SPECIAL 07. STATIC SCALE SYSTEM WARRANTY MAINTENANCE	LS	1.000	1.000
1640	SPV.0105	SPECIAL 08. COMMUNICATIONS TOWER	LS	1.000	1.000
1650	SPV.0105	SPECIAL 09. HOLDING TANKS	LS	1.000	1.000
1660	SPV.0105	SPECIAL 10. EMERGENCY GENERATOR	LS	1.000	1.000
1670	SPV.0105	SPECIAL 11. CONSTRUCTION STAKING INITIAL LAYOUT PARKING LOT	LS	1.000	1.000
1680	SPV.0105	SPECIAL 12. CONSTRUCTION STAKING SUBGRADE PARKING LOT	LS	1.000	1.000
1690	SPV.0105	SPECIAL 13. CONSTRUCTION STAKING CONCRETE PAVEMENT PARKING LOT	LS	1.000	1.000
1700	SPV.0105	SPECIAL 14. SWEF BUILDING, GENERAL CONSTRUCTION	LS	1.000	1.000

3

DATE 09SEP14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1190-43-71 QUANTITY
1710	SPV.0105	SPECIAL 15. SWEF BUILDING, PLUMBING	LS	1.000	1.000
1720	SPV.0105	SPECIAL 16. SWEF BUILDING, HEATING AND VENTILATION	LS	1.000	1.000
1730	SPV.0105	SPECIAL 17. SWEF BUILDING, ELECTRICAL	LS	1.000	1.000
1740	SPV.0105	SPECIAL 18. PROJECT CONCRETE CRACK MITIGATION AND REPAIR SPECIAL	LS	1.000	1.000
1750	SPV.0105	SPECIAL 19. CONSTRUCTION STAKING CONCRETE PAVEMENT JOINT LAYOUT	LS	1.000	1.000
1760	SPV.0180	SPECIAL 01. CONCRETE PAVEMENT 10-INCH COLORED	SY	2,940.000	2,940.000
1770	SPV.0180	SPECIAL 02. SCALE APPROACH PAVEMENT REINFORCEMENT	SY	270.000	270.000
1780	SPV.0180	SPECIAL 03. PARKING LOT ISLAND SURFACE	SY	560.000	560.000
1790	SPV.0180	SPECIAL 04. SALVAGE TOPSOIL AT NEW FACILITY	SY	63,000.000	63,000.000
1800	SPV.0180	SPECIAL 05. PLACING TOPSOIL AT WETLAND RESTORATION	SY	63,000.000	63,000.000
1810	SPV.0180	SPECIAL 06. MULCHING CERTIFIED WEED-FREE	SY	63,000.000	63,000.000

3

CLEARING AND GRUBBING

LOCATION	SPV.0005.01 CLEARING AND GRUBBING FOR NEW FACILITY ACRE
NEW SITE	12
OLD SITE	3
TOTAL	15

SAW CUTS

LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
290+63'E' TO 294+00'E'	32	337
325+80'E' TO 335+40'E'	8	960
284+96'W' TO 294+56'W'	8	960
324+62'W' TO 328+00'W'	32	338
346+00'E' TO 354+50'E'	8	850
349+50'W' TO 362+50'W'	8	1300
UNDISTRIBUTED	104	250
TOTAL	200	5000

ASPHALTIC PAVEMENT ITEMS

LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0605 TACK COAT GAL	465.0400 ASPHALTIC SHOULDER RUMBLE STRIP LF	460.1101 HMA PAV'T TYPE E-1 TON		465.0305 ASPHALTIC SURFACE SAFETY ISLANDS TON
LINE 'E'	42	50	1200	693		84
LINE 'W'	39	50	1200	644		72
LINE 'I'	10			167		
LINE 'S'	3	5		58		
LINE 'N'	6	5		98		
PARKING AREA NEW SITE						
TOTAL	100	110	2400	1,660		156

EARTHWORK SUMMARY

LOCATION	205.0100 COMMON EXCAVATION C.Y.	208.1100 SELECT BORROW C.Y.	625.0500 SALVAGED TOPSOIL S.Y.	SPV.0180.04 SALVAGE TOPSOIL AT NEW FACILITY S.Y.
(LINE 'E') 290+62.35'E' - 335+40.43'E'	9548	21782	10150	
(LINE 'W') 284+95.97'W' - 327+99.64'W'	7470	24333	8170	
(LINE 'I') 303+11.85'I' - 313+69.49'I'	6813	23963	2800	
(LINE 'S') 314+95.00'S' - 318+46.28'S'	1345	2695	1450	
(LINE 'N') 300+83.18'N' - 304+29.36'N'	795	3162	2610	
EXISTING SITE			12,020	63,000
UNDISTRIBUTED - EBS	64,029	64,065		
WETLAND SITE #1	91,500			
WETLAND SITE #2	5,900			
TOTAL	187,400	140,000	37,200	63,000

REMOVAL ITEMS

LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0100 REMOVING PAVEMENT SY	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0180 REMOVING DELINEATORS AND MARKERS EACH	204.0195 REMOVING CONCRETE BASES EACH	204.0220 REMOVING INLETS EACH	204.0225 REMOVING SEPTIC TANKS EACH	204.0230.01 REMOVING BUILDING (STA. 338+40'E') LS	204.0230.02 REMOVING BUILDING (STA. 338+90'E') LS	204.9060.S REMOVING STATIC SCALE EACH	204.0265 ABANDONING WELLS EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SPV.0060.06 REMOVING LP TANK EACH	SPV.0060.05 REMOVING LIGHT POLES EACH	SPV.0060.04 LAMP DISPOSAL HIGH INTENSITY EACH	SPV.0105.01 REMOVING EXISTING SIGNAL EQUIPMENT LS
EXISTING SITE	6	11,100	40	96	23	2		1	1	1	1	34	35	1	23	23	1
315+00'W', 70' LT	1																
338+10'E', 88' LT							1										
TOTAL	7	11,100	40	96	23	2	1	1	1	1	1	34	35	1	23	23	1

EROSION CONTROL ITEMS

LOCATION	© 616.0700.S FENCE SAFETY LF	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINT. LF	628.7504 TEMPORARY DITCH CHECKS LF	628.1104 EROSION BALES EACH	628.2002 EROSION MAT CLASS I TYPE A SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7555 CULVERT PIPE CHECKS EACH	628.1905 MOBILIZ. EROSION CONTROL EACH	628.1910 MOBILIZ. EMERGENCY EROSION CONTROL EACH	* 645.0130 GEOTEXTILE FABRIC TYPE R SY	645.0140 GEOTEXTILE FABRIC TYPE SAS SY
NEW SITE			6,590								2	4	180	87,860
LINE 'W'		3,120		140	10	5000				4				
LINE 'I'									3					
LINE 'S'		220												
LINE 'N'		220												
LINE 'E'	400			140	20	5000				16				
STA. 314+50'E'					10									
STA. 303+00'N'										4				
STA. 303+95'I'										4				
STA. 310+50'I' RT									1					
STA. 312+00'E' LT								1						
STA. 311+00'E' LT							1							
STA. 315+00'W' LT							1							
UNDISTRIBUTED					10									
TOTAL	400	6,590	6,590	280	50	10,000	2	1	4	28	2	4	180	87,860

© TO BE PLACED AROUND THREATENED PLANT LOCATIONS
* TO BE PLACED WITH RIPRAP

BASE COURSE

LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	209.0100 BACKFILL GRANULAR CY
LINE 'E'	10,823	
LINE 'W'	9,175	
LINE 'I'	9,500	
LINE 'S'	1,826	
LINE 'N'	776	
296+00'E'		16
298+00'E'		9
300+00'W'		19
303+00'N'		27
303+95'I'		46
305+21'E'		37
311+00'E'		8
314+03.5'E'		30
318+00'E'		18
TOTAL	32,100	210

DRAINAGE ITEMS

LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.0318 CULVERT PIPE REINF. CONC. CL. IV 18-INCH LF	522.0324 CULVERT PIPE REINF. CONC. CL. IV 24-INCH LF	522.0336 CULVERT PIPE REINF. CONC. CL. IV 36-INCH LF	522.1012 APRON END CULV. PIPE REINF. CONC. 12-INCH EACH	522.1018 APRON END CULV. PIPE REINF. CONC. 18-INCH EACH	522.1024 APRON END CULV. PIPE REINF. CONC. 24-INCH EACH	522.1030 APRON END CULV. PIPE REINF. CONC. 30-INCH EACH	522.1036 APRON END CULV. PIPE REINF. CONC. 36-INCH EACH	606.0200 RIPRAP MEDIUM CY	633.5200 MARKERS CULVERT END EACH
STA. 296+00"E"	1		40				1			2	1
STA. 298+00"E"		45				2				2	2
STA. 300+00"W"			70				2			2	2
STA. 303+00"N"			65				2			2	2
STA. 303+95"I"		135				2				2	2
STA. 305+21"E"			130				2			2	2
STA. 314+03.5"E"				80					2	5	2
STA. 318+00"E"			75				2			2	2
STA. 323+50"W"	1			15					1		1
STA. 325+60"E"	1			10					1	5	1
STA. 306+10"I" LT							1			2	1
STA. 313+00"E" LT					1					1	1
STA. 314+50"E" LT								1			1
TOTAL	3	180	380	105	1	4	10	1	4	27	20

WETLAND RESTORATION

LOCATION	630.0400 SEEDING NURSE CROP LB	SPV.0085.01 SEEDING WETLAND LB	SPV.0005.02 FINAL SHAPING & FINISHING RESTORATION SITE ACRE	SPV.0180.05 PLACING TOPSOIL AT WETLAND RESTORATION SY	SPV.0180.06 MULCHING CERTIFIED WEED-FREE SY
SITE 1	365	59.5	10.56	51,000	51,000
SITE 2	85	14.0	2.44	12,000	12,000
STOCKPILE	150				
TOTAL	600	73.5	13.00	63,000	63,000

CONSTRUCTION STAKING ITEMS

LOCATION	650.4000 STORM SEWER SYSTEMS EACH	650.4500 SUBGRADE LF	650.5500 CURB AND GUTTER LF	650.6000 PIPE CULVERTS EACH	650.7000 CONCRETE PAVEMENT LF	650.8500 ELECTRICAL INSTALLATIONS LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
PROJECT	32	10,500	2,320	12	10,500	1	1	5000
TOTAL	32	10,500	2,320	12	10,500	1	1	5000

STORM SEWER ITEMS

STRUCTURE NO.	608.0412 STORM SEWER PIPE REINF. CONC. CL. IV 12-INCH LF	608.0415 STORM SEWER PIPE REINF. CONC. CL. IV 15-INCH LF	608.0424 STORM SEWER PIPE REINF. CONC. CL. IV 24-INCH LF	608.0430 STORM SEWER PIPE REINF. CONC. CL. IV 30-INCH LF	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3220 INLETS 2X2-FT • EACH	611.3230 INLETS 2X3-FT EACH	611.0606 INLET COVERS TYPE B EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH
14 TO 16		180					1			1
15 TO 16		200					1			1
16 TO 17			225				1			1
17 TO 18			120				1			1
32					1			1		
35 TO 36	100					1			1	
45 TO 46				175	1			1		
TOTAL	100	380	345	175	2	1	4	2	1	4

• 2' Dia.

SIDEWALK

LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
LINE "E"	1,850	16
TOTAL	1,850	16

SPECIAL CONSTRUCTION STAKING

LOCATION	SPV.0105.11 INITIAL LAYOUT PARKING LOT LS	SPV.0105.12 SUBGRADE PARKING LOT LS	SPV.0105.13 CONCRETE PAVEMENT PARKING LOT LS	SPV.0105.19 CONCRETE PAVEMENT JOINT LAYOUT LS
PROJECT	1	1	1	1
TOTAL	1	1	1	1

CONCRETE ITEMS

LOCATION	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0110 CONCRETE PAVEMENT 11-INCH SY	SPV.0090.02 CONCRETE CURB & GUTTER 36-INCH TYPE A SPECIAL LF	416.1010 CONCRETE SURFACE DRAINS CY	415.0210 CONCRETE PAVEMENT GAPS EACH	SPV.0180.02 SCALE APPROACH PAVEMENT REINFORCEMENT SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0090.01 CONCRETE CURB TYPE SPECIAL LF	SPV.0180.01 CONCRETE PAVEMENT 10-INCH COLORED SY
LINE "E"	10,266		225					818				1470
LINE "W"	10,377		853					817		72		1470
LINE "I"	17,628		967								275	
LINE "S"	2,198								112			
LINE "N"	1,081								112			
311+10"E", 19' LT				2								
295+50"E"					1							
324+00"E"					1							
297+50"W"					1							
323+00"W"					1							
309+80"E" - 310+60"E"		135				135						
310+60"E" - 310+80"E"							35					
311+65"E" - 311+85"E"							35					
311+85"E" - 312+65"E"		135				135						
TOTAL	41,550	270	2,045	2	4	270	70	1,635	224	72	275	2940

RESTORATION ITEMS

LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0180 SEEDING MIXTURE NO. 80 LB	631.1000 SOD LAWN SY	632.0101 TREES / 632.0201 SHRUBS EACH	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES 01. 14-DAY INTERVALS EACH	SPV.0180.03 PARKING LOT ISLAND SURFACE SY
PROJECT	3000	39,000	25	700	700	SEE PLANT LIST IN	24	560
TOTAL	3000	39,000	25	700	700	BUILDING PLANS	24	560

TRAFFIC CONTROL ITEMS

LOCATION	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	DAYS	643.0715 WARNING LIGHTS TYPE C NO.	DAYS	643.0300 DRUMS NO.	DAYS	643.0900 SIGNS NO.	DAYS	643.0800 ARROW BOARD NO.	DAYS	649.0400 TEMP. PAV'T MARKING REMOVABLE TAPE 4-INCH LF	643.1050 SIGNS PCMS NO.	DAYS
STAGE 1					117	20,124	8	1088					
STAGE 2	2	84	32	1344	117	4914	28	1176	4	168	2340	1	42
STAGE 3	2	80	32	1280	117	4680	28	1120	4	160	2340	1	40
STAGE 4	2	122	32	1952	117	7137	32	1448	4	244		1	61
TOTAL		286		4576		36,855		4832		572	4680		143

PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	MISCELLANEOUS QUANTITIES	SHEET	E

FILE NAME :U:\Projects-SWEF\Superior-72\CADD Plans V8\030202_mq.dgn PLOT DATE : 28-MAR-2014 10:52 PLOT BY : dotres PLOT NAME : 030202 mq.dgn PLOT SCALE : 1.947425:1.000000

WISDOT/CADDS SHEET 43

PROPOSED BUILDING ITEMS

LOCATION	SPV.0105.14 SWEF BUILDING GENERAL CONST. LS	SPV.0105.15 SWEF BUILDING PLUMBING LS	SPV.0105.16 SWEF BUILDING HEATING & VENTILATION LS	SPV.0105.17 SWEF BUILDING ELECTRICAL LS	SPV.0105.03 WELL PUMP & CONTROLS LS	SPV.0060.07 UNDERGROUND LP TANKS AND PIPING EA	SPV.0105.09 HOLDING TANKS LS	SPV.0105.04 WEIGH-IN-MOTION SYSTEM LS	SPV.0105.05 WEIGH-IN-MOTION SYSTEM WARRANTY MAINTENANCE LS	SPV.0105.06 STATIC SCALE SYSTEM LS	SPV.0105.07 STATIC SCALE SYSTEM WARRANTY MAINTENANCE LS
NEW SITE	1	1	1	1	1	3	1	1	1	1	1
TOTAL	1	1	1	1	1	3	1	1	1	1	1

PROJECT ITEMS

LOCATION	213.0100 FINISHING ROADWAY (PROJECT) EACH	619.1000 MOBILIZATION EACH	642.5400 FIELD OFFICE TYPE D EACH	642.6000 FIELD LABORATORY EACH	643.0100 TRAFFIC CONTROL EACH	SPV.0055.01 TELEPHONE SERVICE SUPERIOR SWEF DOL	SPV.0055.02 ELECTRICAL SERVICE SUPERIOR SWEF DOL
PROJECT	1	1	1	1	1	1000	5000
TOTAL	1	1	1	1	1	1000	5000

ELECTRICAL AND LIGHTING ITEMS

LOCATION	653.0135 PULL BOXES, 24"x36" STEEL EACH	654.0105 CONCRETE BASES TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	655.0625 ELEC. WIRE LIGHTING 6 AWG LF	655.0630 ELEC. WIRE LIGHTING 4 AWG LF	655.0620 ELEC. WIRE LIGHTING 8 AWG LF	652.0225 CONDUIT RIGID NONMETALLIC SCH 40 2-IN LF	654.0200 CONCRETE CONTROL CABINET BASE TYPE 6 EACH	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL 01. OPERATIONS BUILDING LS	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0710 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FOOT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	SPV.0060.08 LIGHTING CONTROL CABINET TYPE "WLP" EACH	652.0340 CONDUIT RIGID NONMETALLIC SCHEDULE 80 4-INCH LF
NEW SITE	5	38	38	14,940	19,450	17,200	10,600	1	1	38	41	41	1	1,000
TOTAL	5	38	38	14,940	19,450	17,200	10,600	1	1	38	41	41	1	1,000

NOTE: SEE SITE ELECTRICAL PLANS FOR DETAILED QUANTITIES BREAKOUT.

MISCELLANEOUS ITEMS

LOCATION	SPV.0105.08 COMMUNICATIONS TOWER LS	SPV.0105.10 EMERGENCY GENERATOR LS	SPV.0060.03 TRASH RECEPTACLES EACH
NEW SITE	1	1	3
TOTAL	1	1	3

MGS GUARDRAIL

STATION - STATION	614.2300 MGS GUARDRAIL 3 LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
258+50"E" - 260+62"E", LT	212	1	1
269+00"E" - 271+12"E", LT	212	1	1
347+62"W" - 349+75"W", RT	212	1	1
358+38"W" - 360+50"W", RT	212	1	1
TOTALS	848	4	4

NOTE: LOCATION TO BE ADJUSTED BASED ON WIM EQUIPMENT INSTALLATION.

DELINEATORS FLEXIBLE

STATION - STATION	COLOR	SPACING	633.0200 DELINEATORS FLEXIBLE EACH
285+00"W" - 304+00"W", RT	YELLOW	100'	20
291+00"E" - 304+00"E", LT	YELLOW	100'	14
295+00"E" - 323+00"E", RT	WHITE	100'	29
297+00"W" - 322+50"W", LT	WHITE	100'	26
301+00"N" - 304+00"N", LT	WHITE	25'	13
301+25"I" - 307+00"I", LT	WHITE	25'	15
305+50"W" - 313+50"W", RT	YELLOW	100'	9
313+00"E" - BUILDING, LOOP	YELLOW	100'	8
313+00"I" - ISLAND, RT	WHITE	SPECIAL	5
315+50"S" - 318+25"S", LT	WHITE	25'	12
315+50"W" - 327+50"W", RT	YELLOW	100'	13
316+00"E" - 335+00"E", LT	YELLOW	100'	20
BUILDING - 309+50"E", LOOP	YELLOW	50'	16
		TOTAL	200

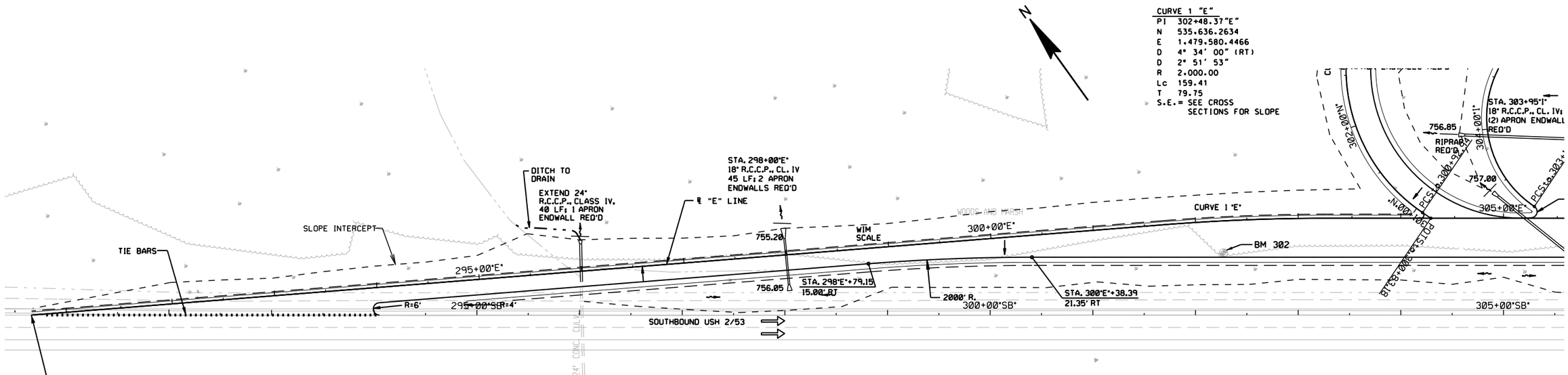
PAVEMENT MARKING ITEMS

LOCATION	646.0106 EPOXY 4-INCH LF	647.0656 PARKING STALL EPOXY LF	646.0126 EPOXY 8-INCH LF	647.0726 DIAGONAL EPOXY 12-INCH LF	647.0256 SYMBOLS EPOXY EACH	647.0606 ISLAND NOSE EPOXY EACH	647.0776 CROSSWALK EPOXY 12-INCH LF	646.0600 REMOVING PAV'T MARKING LF	647.0566 STOP LINE EPOXY 18-INCH LF	647.0456 CURB EPOXY LF
LINE "E"	10,654		795	1415	1			3030	28	
LINE "W"	10,560		795	1345				3030		
LINE "I"	3,446	3,130	100	130	5		140		28	
LINE "S"	630									
LINE "N"	800									
346+00"NB" - 355+00"NB"	900									
349+00"SB" - 363+00"SB"	1,400									
310+20"I", 175' RT						1				
						1				
313+65"I", 50' RT										155
313+75"I"										
292+25"E" - 294+00"E"										
324+50"W" - 326+50"W"										
311+60"I", 200' RT										
EXISTING USH 2/53										
TOTAL	28,390	3,130	1,690	2,890	6	2	140	6060	56	155

SIGNING

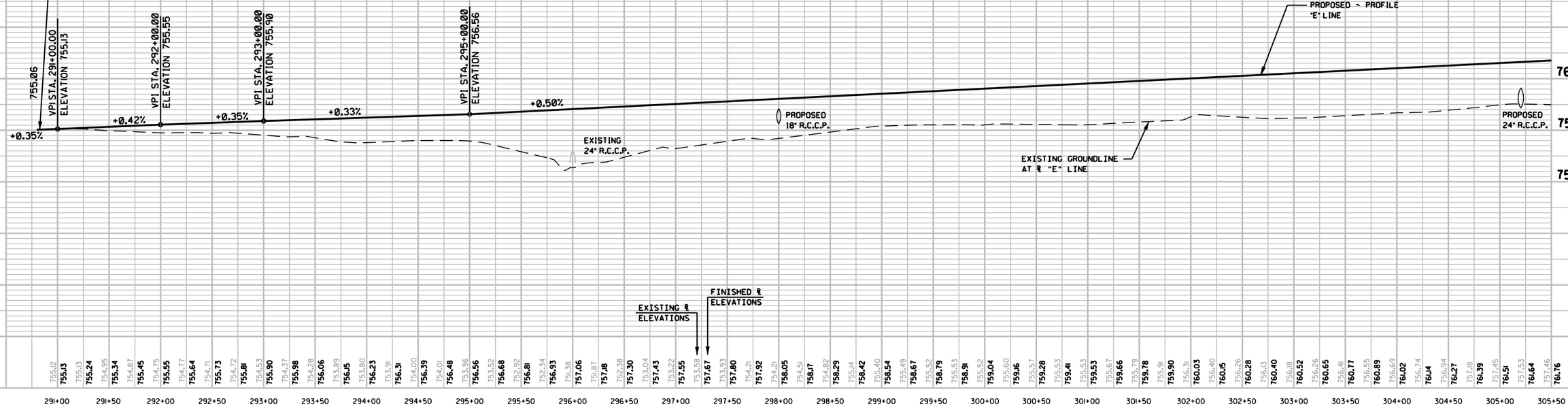
STA.	OFFSET	SIGN CODE	634.0616 POSTS, WOOD 4X6 X 16FT EACH	634.0618 POSTS, WOOD 4X6 X 18FT EACH	634.0620 POSTS, WOOD 4X6 X 20FT EACH	POSTS TYPE	POST 1 LENGTH	POST 2 LENGTH	635.0200 SIGN SUPP. STRUCT. STEEL HS LBS	636.1000 SIGN SUPP. STEEL REINF. HS LBS	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	637.1210 SIGNS TYPE I REFL. H SF	637.2210 SIGNS TYPE II REFL. H SF	NOTES
188+00 "E"	RT	E5-56A		1	1								54.00	
192+00 "E"	RT	R4-5L	1										12.00	
192+00 "E"	LT	R4-5L	1										12.00	
194+00 "E"	RT	R13-49	1	1								32.00		"PREPASS..."
194+00 "E"	LT	R13-49	1	1								32.00		"PREPASS..."
231+00 "E"	RT	E5-65		1	1								72.00	
243+20 "E"	RT	E5-6L				A	19	20.5	265	68	1.2		72.00	FIELD VERIFY POST LENGTHS
243+20 "E"	LT	E5-6L				A	19	20.5	265	68	1.2		72.00	FIELD VERIFY POST LENGTHS
256+00 "E"	RT	R13-1	1	1									22.50	
256+00 "E"	LT	R13-1	1	1									22.50	
269+60 "E"	LT	E5-57L				B	16.5	18	305	98	1.6		60.00	FIELD VERIFY POST LENGTHS
290+50 "E"	LT	E5-58A MOD.				B	16.5	18	305	98	1.6		66.00	FIELD VERIFY POST LENGTHS
293+50 "E"	LT	W13-3		1									12.00	
302+50 "E"	RT	SPECIAL		1								5.00		"SCALE KEEP LEFT"
302+50 "E"	LT	SPECIAL										5.00		"SCALE KEEP LEFT"
302+50 "E"	RT	SPECIAL		1								5.00		"EXIT KEEP RIGHT"
302+50 "E"	LT	SPECIAL										5.00		"EXIT KEEP RIGHT"
303+75 "E"	LT	R1-2	1										7.75	
304+90 "E"	LT	R1-2	1										7.75	
306+75 "E"	RT	R2-2	1										9.00	
306+75 "E"	LT	R2-2	1										9.00	
310+45 "E"	LT	R1-1		1									5.18	
310+45 "E"	LT	SPECIAL										6.00		"WAIT UNTIL TRUCK ..."
310+65 "E"	LT	SPECIAL	1									2.00		"SCALE"
313+00 "E"	LT	M3-4			1								1.75	
313+00 "E"	LT	M1-4											1.75	
313+00 "E"	LT	M3-1											4.00	
313+00 "E"	LT	M1-4											4.00	
313+00 "E"	LT	M6-2											1.75	
313+00 "E"	LT	M3-2			1								1.75	
313+00 "E"	LT	M1-4											4.00	
313+00 "E"	LT	M3-3											4.00	
313+00 "E"	LT	M1-4											3.06	
313+00 "E"	LT	M6-1											3.06	
314+65 "E"	LT	SPECIAL	1	1								8.00		"INSPECTION AND PARKING"
316+60 "E"	LT	M3-2			1								1.75	
316+60 "E"	LT	M1-4											4.00	
316+60 "E"	LT	M3-3											1.75	
316+60 "E"	LT	M1-4											4.00	
316+60 "E"	LT	M6-1											3.06	
316+60 "E"	RT	M3-2			1								1.75	
316+60 "E"	RT	M1-4											4.00	
316+60 "E"	RT	M3-3											1.75	
316+60 "E"	RT	M1-4											4.00	
316+60 "E"	RT	M6-1											3.06	
318+50 "E"	LT	W4-2L	1										16.00	
318+50 "E"	RT	W4-2L	1										16.00	
320+50 "SB"	RT	W4-1L	1										16.00	RIGHT SIDE OF SB 2/53
320+50 "SB"	LT	W4-1L	1										16.00	LEFT SIDE OF SB 2/53
322+75 "E"	LT	R5-53A	1										3.00	
		SUBTOTAL	15	10	6				1140	332	5.60	100	641	

STA.	OFFSET	SIGN CODE	634.0616 POSTS, WOOD 4X6 X 16FT EACH	634.0618 POSTS, WOOD 4X6 X 18FT EACH	634.0620 POSTS, WOOD 4X6 X 20FT EACH	POSTS TYPE	POST 1 LENGTH FT	POST 2 LENGTH FT	635.0200 SIGN SUPP. STRUCT. STEEL HS LBS	636.1000 SIGN SUPP. STEEL REINF. HS LBS	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	637.1210 SIGNS TYPE I REFL. H SF	637.2210 SIGNS TYPE II REFL. H SF	NOTES
297+25 "W"	RT	E5-53A	1										3.00	
301+50 "W"	LT	W4-2L	1										16.00	
301+50 "W"	RT	W4-2L	1										16.00	
302+50 "NB"	RT	W4-1L	1										16.00	RIGHT SIDE OF NB 2/53
302+50 "NB"	LT	W4-1L	1										16.00	LEFT SIDE OF NB 2/53
303+50 "W"	RT	M3-4			1								1.75	
303+50 "W"	RT	M1-4											4.00	
303+50 "W"	RT	M3-1											1.75	
303+50 "W"	RT	M1-4											4.00	
303+50 "W"	RT	M6-1											3.06	
303+50 "W"	LT	M3-4			1								1.75	
303+50 "W"	LT	M1-4											4.00	
303+50 "W"	LT	M3-1											1.75	
303+50 "W"	LT	M1-4											4.00	
303+50 "W"	LT	M6-1											3.06	
306+00 "W"	RT	M4-5	1										1.75	
306+00 "W"	RT	SPECIAL											2.00	"SCALE"
306+00 "W"	RT	M6-2											3.06	
313+60 "W"	RT	SPECIAL	2										24.00	LOCATED ON ISLAND AT PARKING AREA
313+60 "W"	RT	M4-5	1										1.75	MEDIAN ISLAND
313+60 "W"	RT	SPECIAL											2.00	"SCALE"
313+60 "W"	RT	M6-2											3.06	
315+10 "W"	LT	R2-2	1										9.00	
315+50 "W"	RT	R1-2	1										7.75	
316+00 "W"	RT	M3-4			1								1.75	
316+00 "W"	RT	M1-4											4.00	
316+00 "W"	RT	M3-1											1.75	
316+00 "W"	RT	M1-4											4.00	
316+00 "W"	RT	M6-2											2.19	
317+00 "W"	RT	SPECIAL		1									5.00	"SCALE KEEP LEFT"
317+00 "W"	RT	SPECIAL											5.00	"EXIT KEEP RIGHT"
317+00 "W"	LT	SPECIAL		1									5.00	"SCALE KEEP LEFT"
317+00 "W"	LT	SPECIAL											5.00	"EXIT KEEP RIGHT"
325+00 "W"	RT	W13-3		1									12.00	
328+00 "W"	RT	E5-58 MOD.				B	16.5	18	305	98	1.6		66.00	FIELD VERIFY POST LENGTHS
348+90 "W"	RT	E5-57L				B	16.5	18	305	98	1.6		60.00	FIELD VERIFY POST LENGTHS
362+50 "NB"	RT	R13-1	1	1									22.50	
362+50 "NB"	LT	R13-1	1	1									22.50	
375+30 "NB"	RT	E5-56L				A	19	20.5	265	68	1.2		72.00	FIELD VERIFY POST LENGTHS
375+30 "NB"	LT	E5-56L				A	19	20.5	265	68	1.2		72.00	FIELD VERIFY POST LENGTHS
388+00 "NB"	RT	E5-65		1	1								72.00	
396+00 "NB"	RT	R13-49	1	1								32.00		"PREPASS FOLLOW..."
426+00 NB 53	RT	R4-5L	1										12.00	
426+00 NB 53	LT	R4-5L	1										12.00	
426+00 WB 2	RT	R4-5L	1										12.00	
428+10 NB 53	RT	E5-56A		1	1								54.00	
428+10 NB 53	LT	E5-56A		1	1								54.00	
428+10 WB 2	RT	E5-56A		1	1								54.00	
316+00 "S"	RT	SPECIAL										16.00		"INSPECTION AND PARKING"
317+50 "S"	LT	SPECIAL										7.50		"LEAKING TRUCK PARKING"
		SUBTOTAL	17	10	7				1140	332	5.6	101	735.18	
		GRAND TOTAL	32	21	13				2280	664	11	201	1376	



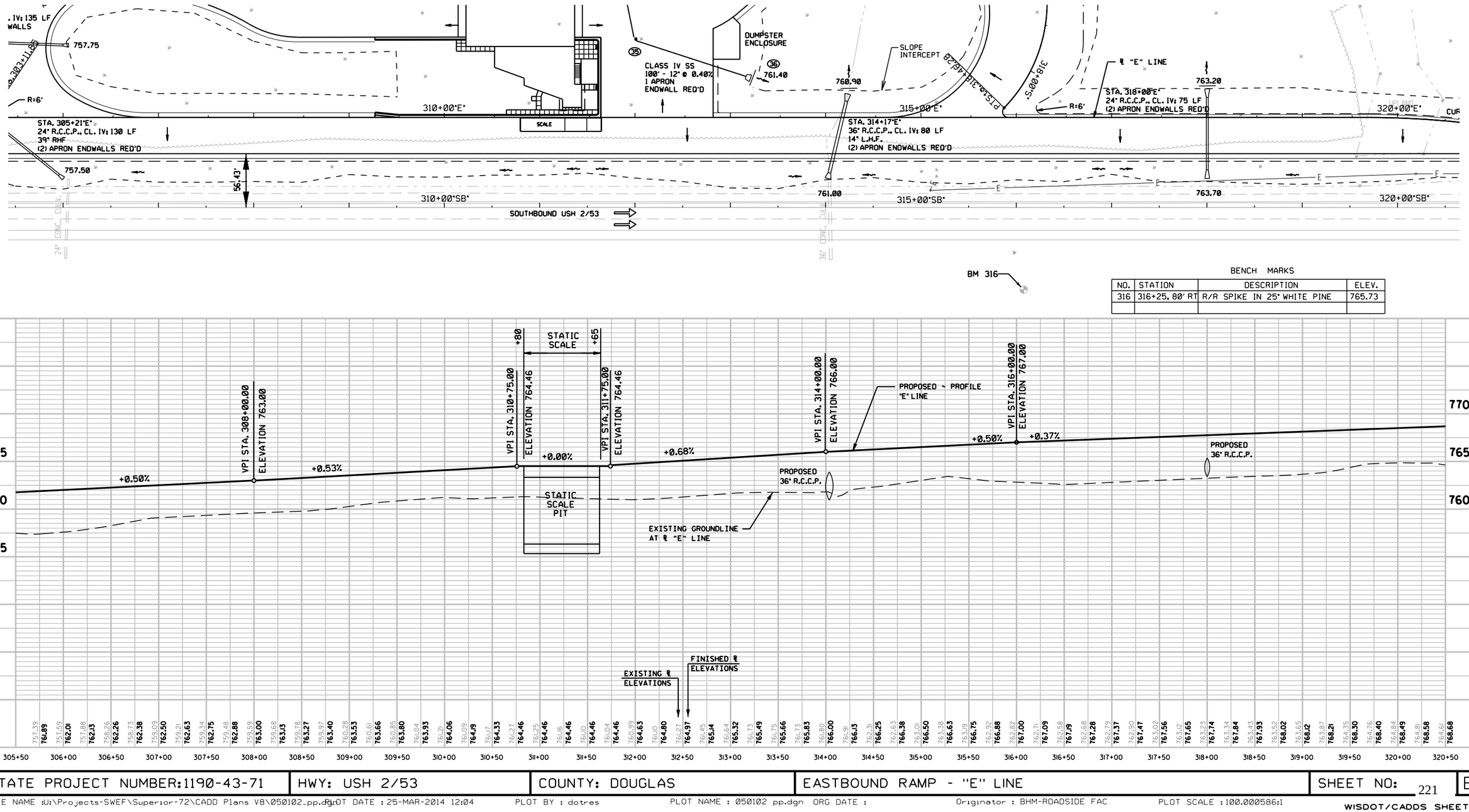
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
290	290+90, 90'RT	R/R SPIKE IN 12" ASPEN	753.42
302	302+15, 60'LT	R/R SPIKE IN 6" SPRUCE	757.58



291+00	291+50	292+00	292+50	293+00	293+50	294+00	294+50	295+00	295+50	296+00	296+50	297+00	297+50	298+00	298+50	299+00	299+50	300+00	300+50	301+00	301+50	302+00	302+50	303+00	303+50	304+00	304+50	305+00	305+50
755.12	755.13	755.24	754.95	755.34	754.87	755.45	754.75	755.55	754.77	755.64	754.71	755.73	754.72	755.81	754.53	755.90	754.37	755.98	754.28	756.06	753.89	756.15	753.80	756.23	753.91	756.31	754.00	756.39	754.01
756.48	753.96	756.56	753.52	756.68	752.92	756.81	752.34	756.93	751.38	757.06	751.87	757.18	752.38	757.30	753.04	757.43	753.22	757.55	753.58	757.67	753.93	757.80	754.21	757.92	754.21	758.05	754.51	758.17	754.82
758.29	755.14	758.42	755.40	758.54	755.49	758.67	755.52	758.79	755.53	758.91	755.52	759.04	755.57	759.16	755.53	759.28	755.53	759.41	755.63	759.53	755.67	759.66	755.79	759.78	755.91	759.90	756.31	760.03	756.40
760.15	756.26	760.28	756.13	760.40	756.18	760.52	756.26	760.65	756.41	760.77	756.55	760.89	756.69	761.02	756.74	761.14	756.94	761.27	757.18	761.39	757.45	761.51	757.63	761.64	757.46	761.76			

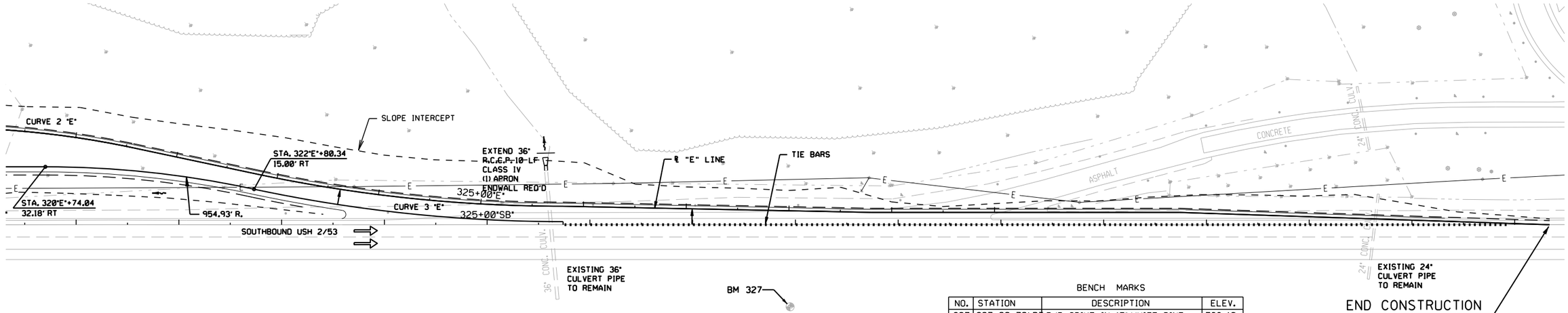
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	EASTBOUND RAMP - "E" LINE	SHEET NO: 220	E



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	EASTBOUND RAMP - "E" LINE	SHEET NO: 221	E

CURVE 2 "E"
PI 320+63.67"E"
N 534,579.1102
E 1,481,056.2603
D 11° 59' 35" (RT)
D 6° 27' 08"
R 888.00
Lc 185.87
T 93.28
S.E.=SEE CROSS SECTIONS FOR SLOPE

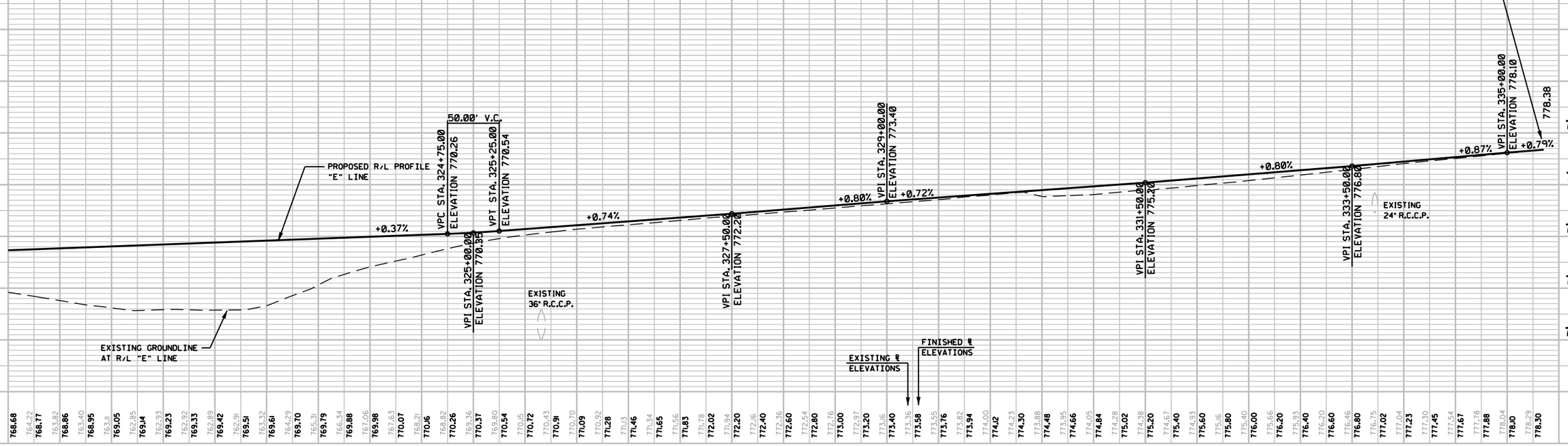
CURVE 3 "E"
PI 324+30.80"E"
N 534.307.4597
E 1.481.304.2435
D 11° 59' 35" (LT)
D 4° 00' 00"
R 1.432.40
Lc 299.83
T 150.46
S.E.=SEE CROSS SECTIONS FOR SLOPE



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
327	327+90.70' RT	R/R SPIKE IN 15" WHITE PINE	768.40

END CONSTRUCTION
STA. 335"E"+40.43



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	EASTBOUND RAMP - "E" LINE	SHEET NO: 222	E

FILE NAME :U:\Projects-SWEF\Superior\CADD Plans V8\050103_pp.dgn PLOT DATE : 26-DEC-2013 13:39 PLOT BY : dotres PLOT NAME : 050103 pp.dgn ORG DATE : Originator : BHM-ROADSIDE FAC PLOT SCALE : 100.0000586:1.000000

WISDOT/CADDS SHEET 40

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

CURVE 1 "W"
PI 296+80.06"W"
N 536,253.8123
E 1,479,330.6459
Δ 14° 46' 10" (RT)
D 5° 14' 04"
R 1,095.00
Lc 282.17
T 141.92
S.E.=SEE CROSS SECTION FOR SLOPES

BM 288

POT Sta. 284+95.97
285+00"W"
PDT Sta. 288+56.17
290+00"W"
PDT Sta. 291+56.17
295+00"W"
PC Sta. 294+56.23
PT Sta. 297+38.45

NORTHBOUND USH 2/53

R=4'
CURVE 1 "W" STA. 297"W"+55.95 15.00' LT

TIE BARS
℄ "W" LINE
SLOPE INTERCEPT

BEGIN CONSTRUCTION
STA. 284"W"+95.97

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
288	288+10.70'LT	R/R SPIKE IN STUMP TWIN 8" ASPEN	749.43

751.65
+0.47%
VPI STA. 289+00.00 ELEVATION 753.53
+0.54%
VPI STA. 291+50.00 ELEVATION 754.90
+0.43%
+0.43%
PROPOSED ℄ PROFILE "E" LINE
EXISTING GROUNDLINE AT ℄ "W" LINE
VPI STA. 297+50.00 ELEVATION 757.45

EXISTING ℄ ELEVATIONS
FINISHED ℄ ELEVATIONS

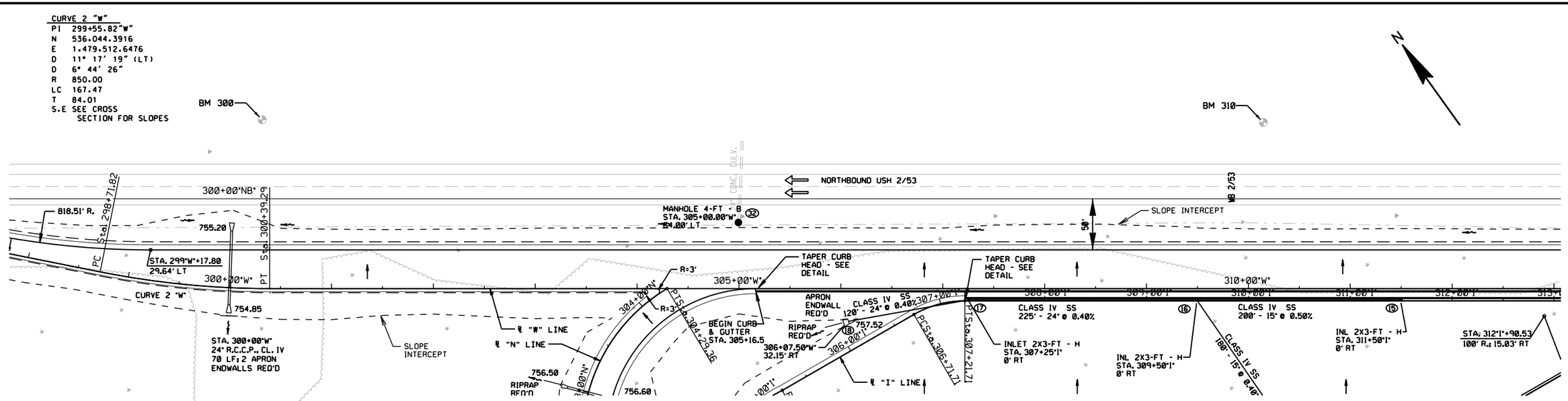
760
755
750
745

283+50	284+00	284+50	285+00	285+50	286+00	286+50	287+00	287+50	288+00	288+50	289+00	289+50	290+00	290+50	291+00	291+50	292+00	292+50	293+00	293+50	294+00	294+50	295+00	295+50	296+00	296+50	297+00	297+50	298+00
756.65	751.79	751.77	751.93	751.89	752.06	752.01	752.20	752.12	752.29	752.24	752.33	752.36	752.37	752.48	752.39	752.60	752.43	752.72	752.48	752.84	752.51	752.96	752.55	753.07	752.56	753.19	752.58	753.31	752.65
753.43	752.75	753.55	752.86	753.68	752.97	753.82	753.08	753.95	753.18	754.09	753.30	754.22	753.45	754.36	753.60	754.49	753.76	754.63	753.90	754.76	753.99	754.90	754.08	755.01	754.17	755.11	754.27	755.22	754.34
755.32	754.41	755.43	754.47	755.54	754.54	755.64	754.66	755.75	754.77	755.86	754.86	755.96	754.97	756.07	754.99	756.17	755.04	756.28	755.04	756.39	754.97	756.49	754.82	756.60	754.59	756.71	754.28	756.81	753.89
756.92	753.42	757.02	753.21	757.13	753.41	757.24	753.59	757.34	753.81	757.45	754.08	757.59	754.36	757.72															

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	WESTBOUND RAMP - "W" LINE	SHEET NO: 223	E

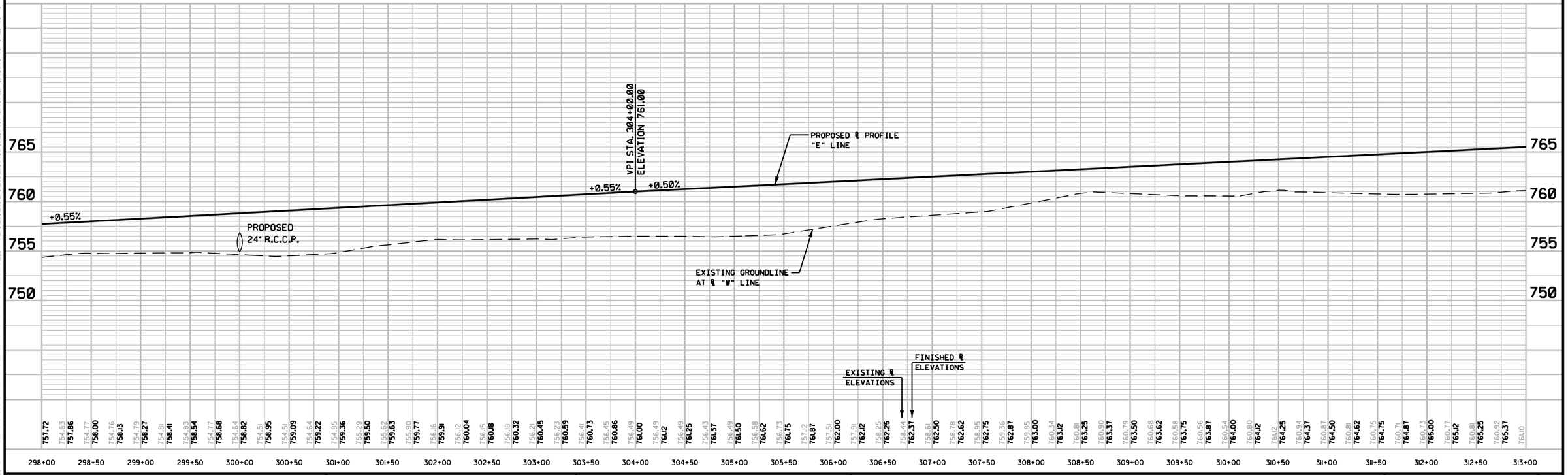
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,59,60,61,62,63

CURVE 2 "W"
PI 299+55.82"W"
N 536,044.3916
E 1,479,512.6476
D 11° 17' 19" (LT)
D 6° 44' 26"
R 850.00
LC 167.47
T 84.01
S.E SEE CROSS SECTION FOR SLOPES



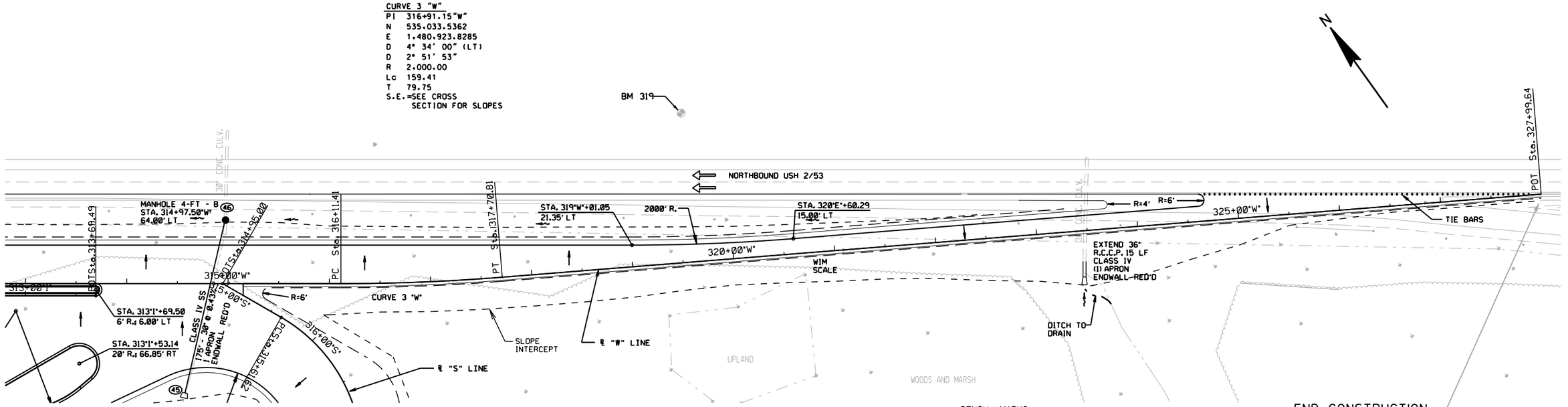
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
300	300+25.50'LT	R/R SPIKE IN 9" ASPEN	754.83
310	310+15.75'LT	R/R SPIKE IN 8" ASPEN	762.04



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	WESTBOUND RAMP - "W" LINE	SHEET NO: 224	E

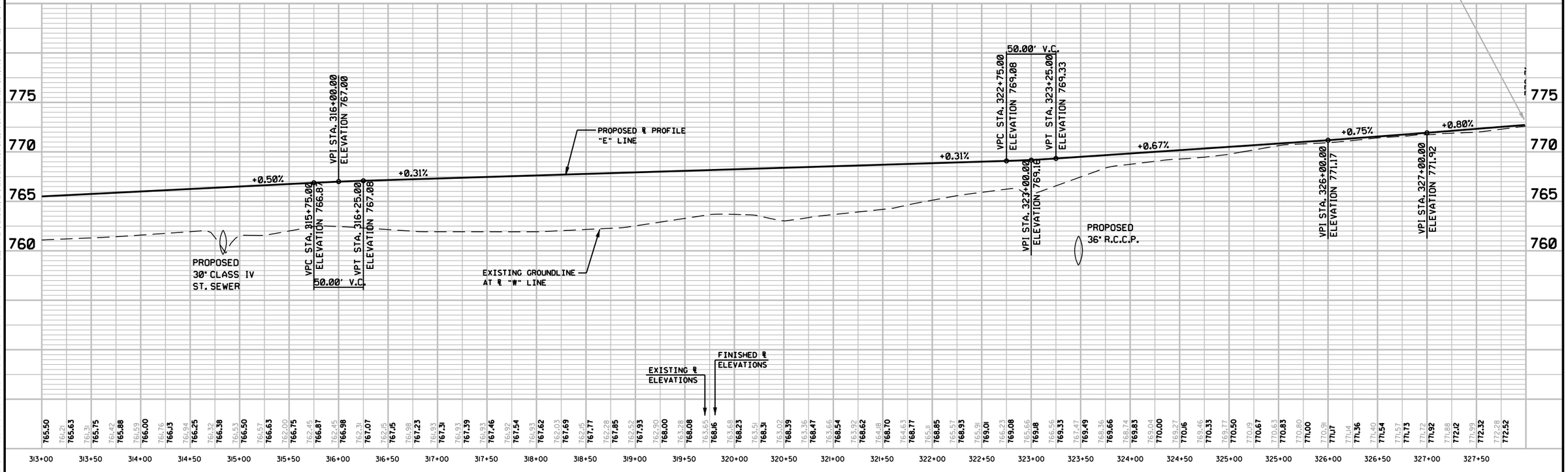
CURVE 3 "W"
PI 316+91.15"W"
N 535.033.5362
E 1.480.923.8285
D 4° 34' 00" (LT)
D 2° 51' 53"
R 2.000.00
Lc 159.41
T 79.75
S.E.=SEE CROSS SECTION FOR SLOPES



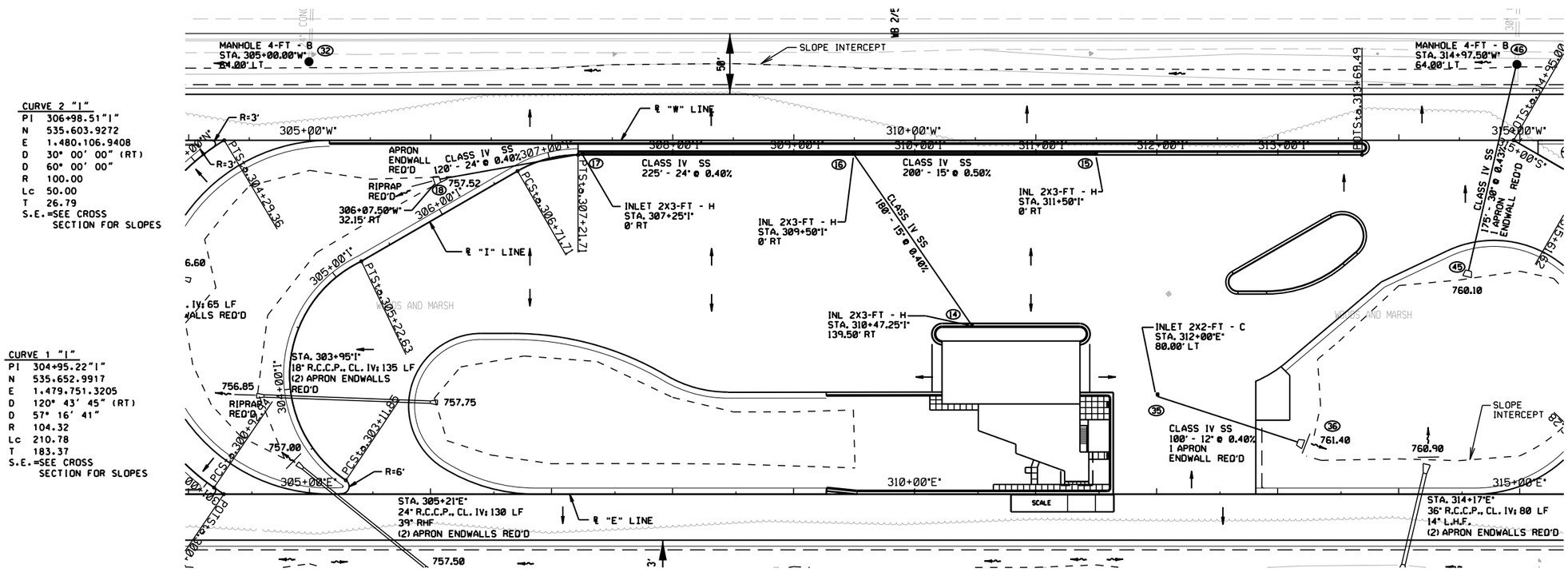
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
319	319+35 75'LT	R/R SPIKE IN 6" ASPEN	763.21
330	330+00, 35'RT	N. BOLT PAINTED L.P. BASE	772.97

END CONSTRUCTION
STA. 327"W"+99.64

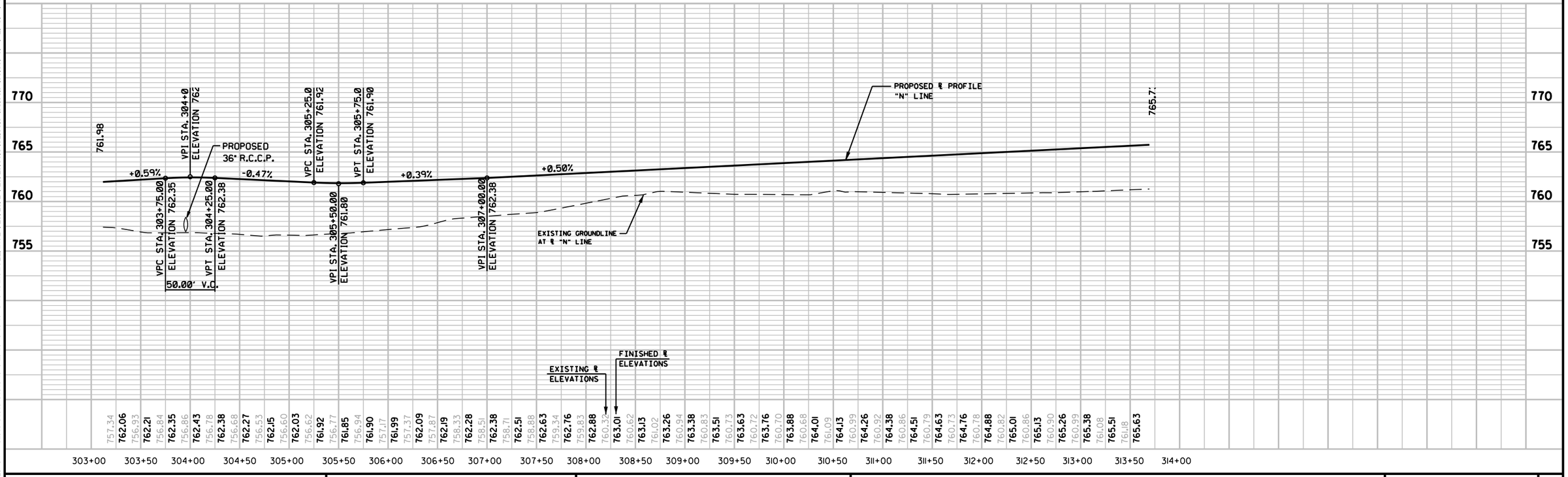


STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	WESTBOUND RAMP - "W" LINE	SHEET NO: 225	E

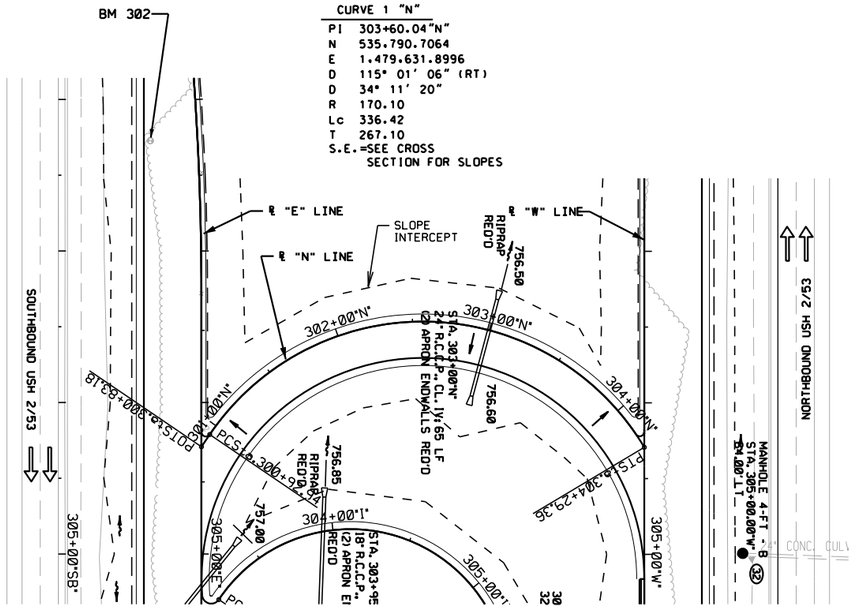


BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
310	310+15, 75' LT	R/R SPIKE IN 8" ASPEN	762.04



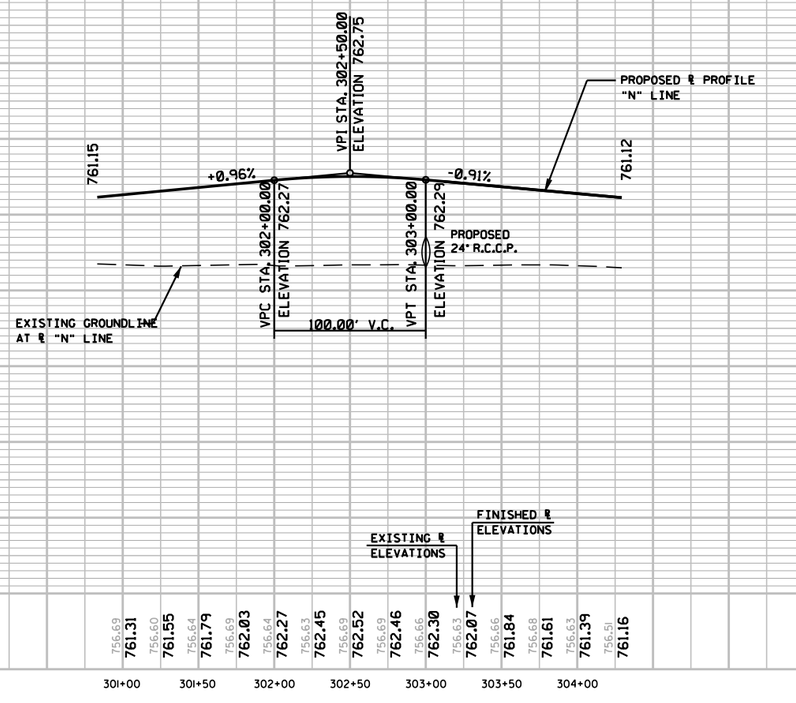
STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	INNER LOOP - "I" LINE	SHEET NO: 226	E



N

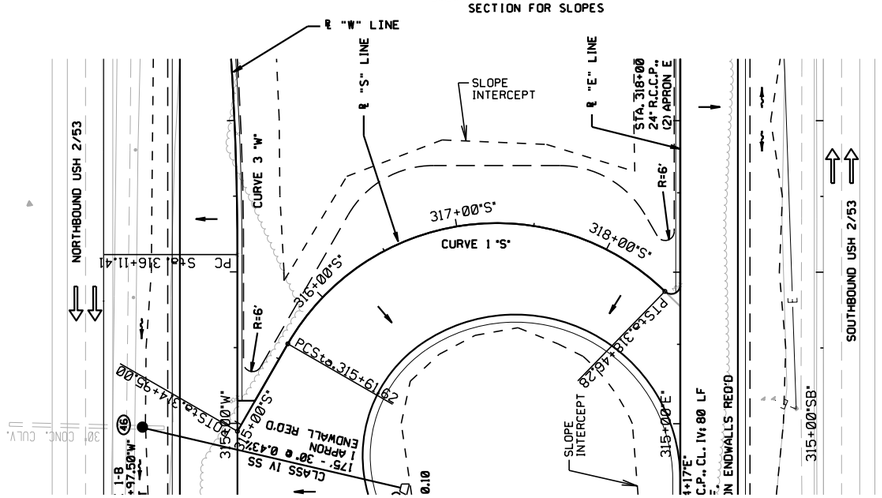
BENCH MARKS

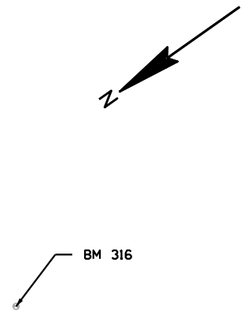
NO.	STATION	DESCRIPTION	ELEV.
302	302+15.60' LT	R/R SPIKE IN 6" SPRUCE	757.28



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	NORTH LOOP - "N" LINE	SHEET NO: 227 E

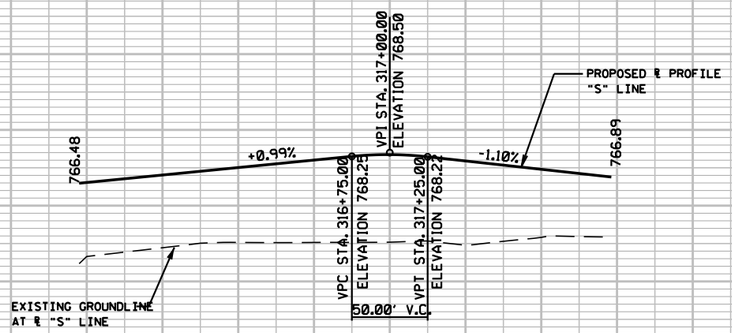
CURVE 1 "S"
PI 317+66.22"S"
N 534,900.9371
E 1,480,876.3296
D 104° 14' 40" (RT)
D 36° 37' 14"
R 159.15
Lc 284.66
T 204.61
S.E.=SEE CROSS SECTION FOR SLOPES

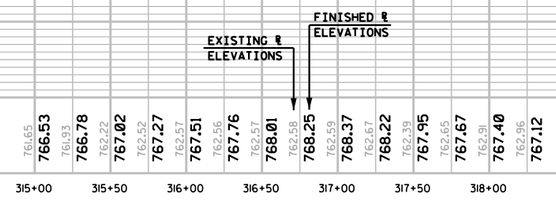




BENCH MARKS

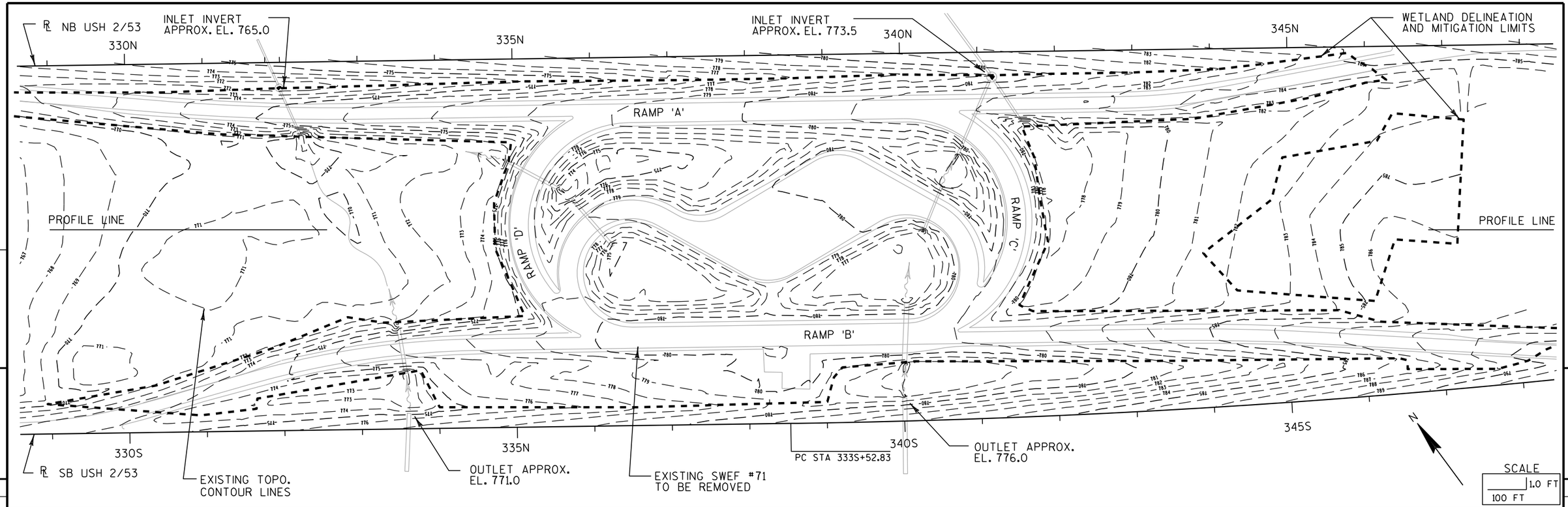
NO.	STATION	DESCRIPTION	ELEV.
316	316+25(SB), 80' RT	R/R SPIKE IN 25" WHITE PINE	765.73

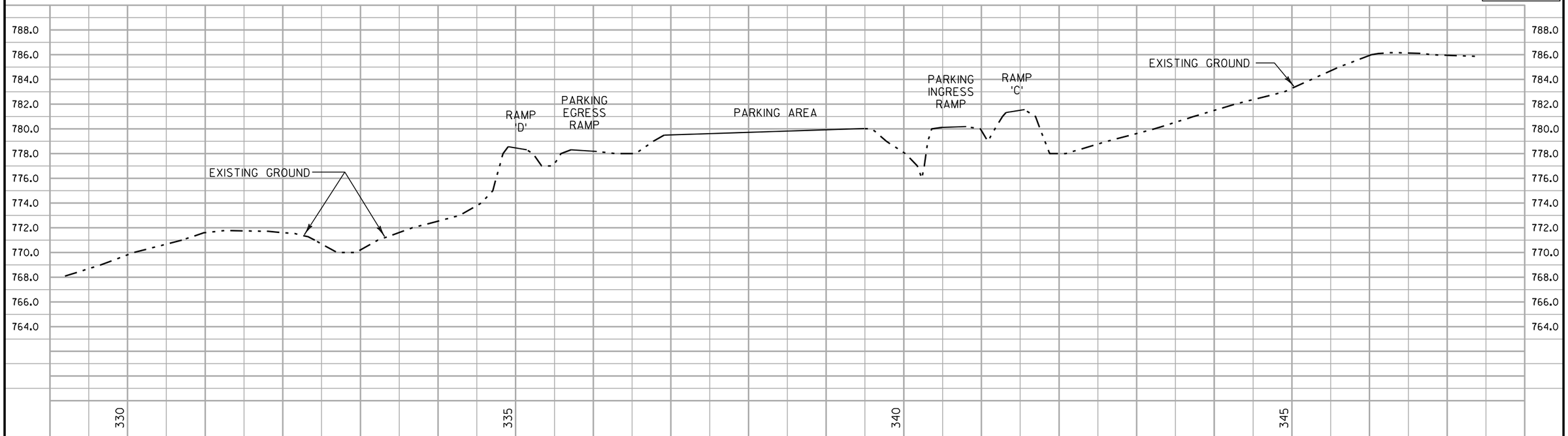




STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	SOUTH LOOP - "S" LINE	SHEET NO: 228	E

Figure 2. Existing Topography



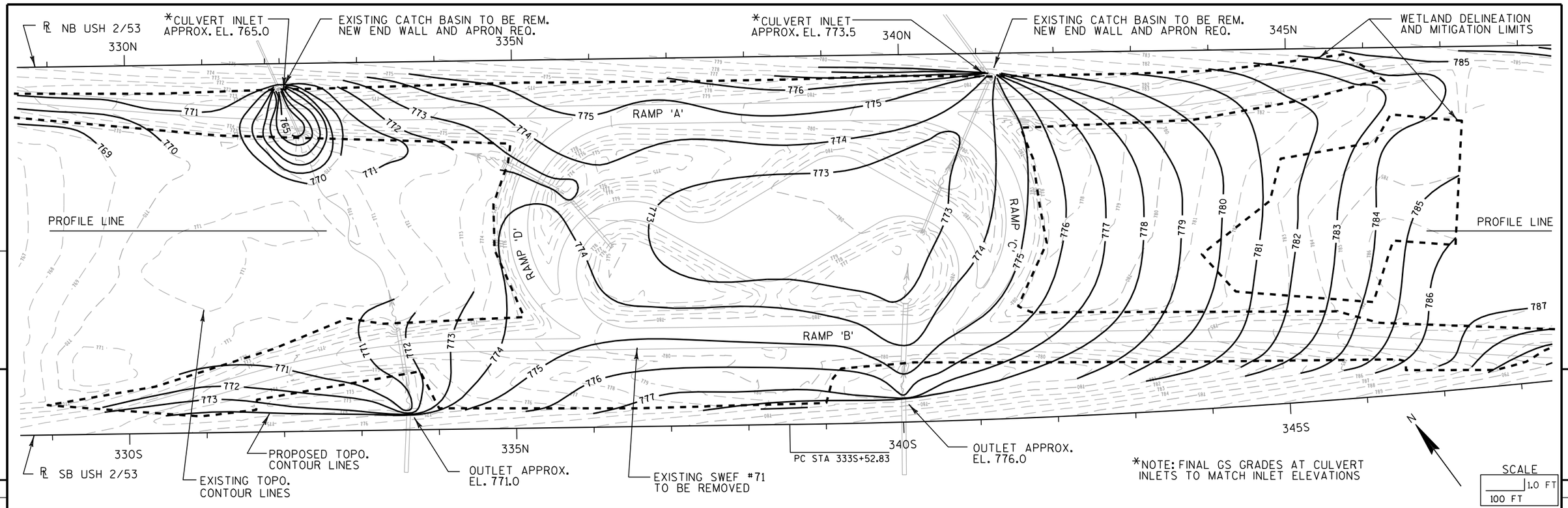


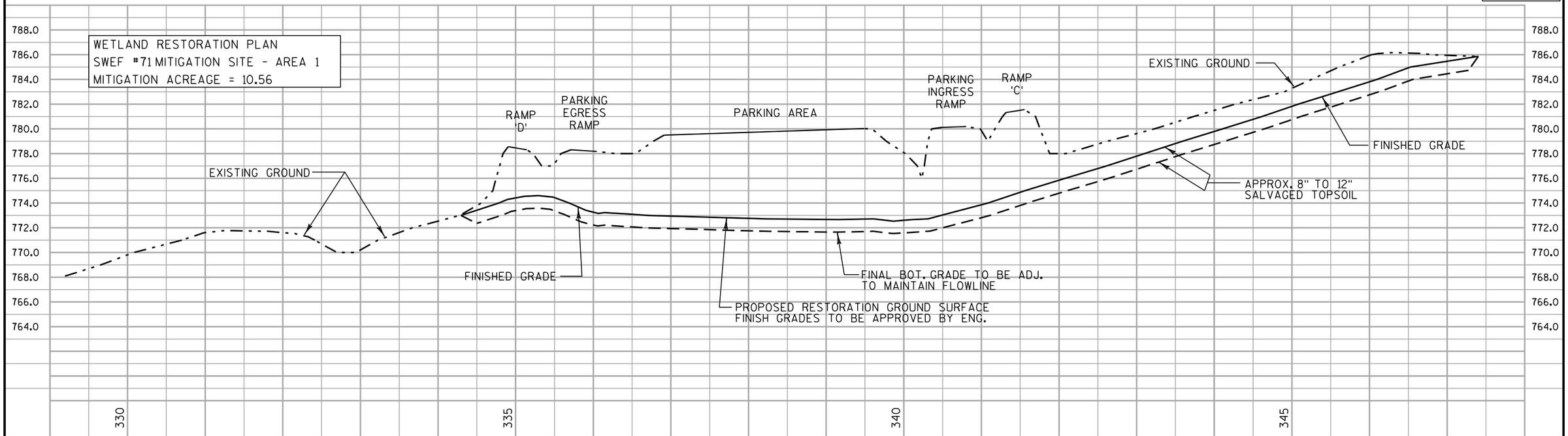
PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	WETLAND MITIGATION SITE - AREA 1 TOPO	SHEET 229	E

FILE NAME : c:\Users\DOTWJK_NWRegion\005 NW DESIGN PROJECTS\11904371\DGNs\Finals 2010\11904371_10MITIGATION_TOPO_5-11.dgn PLOT DATE : 17-MAY-2011 11:05 PLOT BY : dotwjk PLOT NAME : PLOT SCALE : 127.5:1

WISDOT/CADDS SHEET 40

Figure 6. Grading Plan



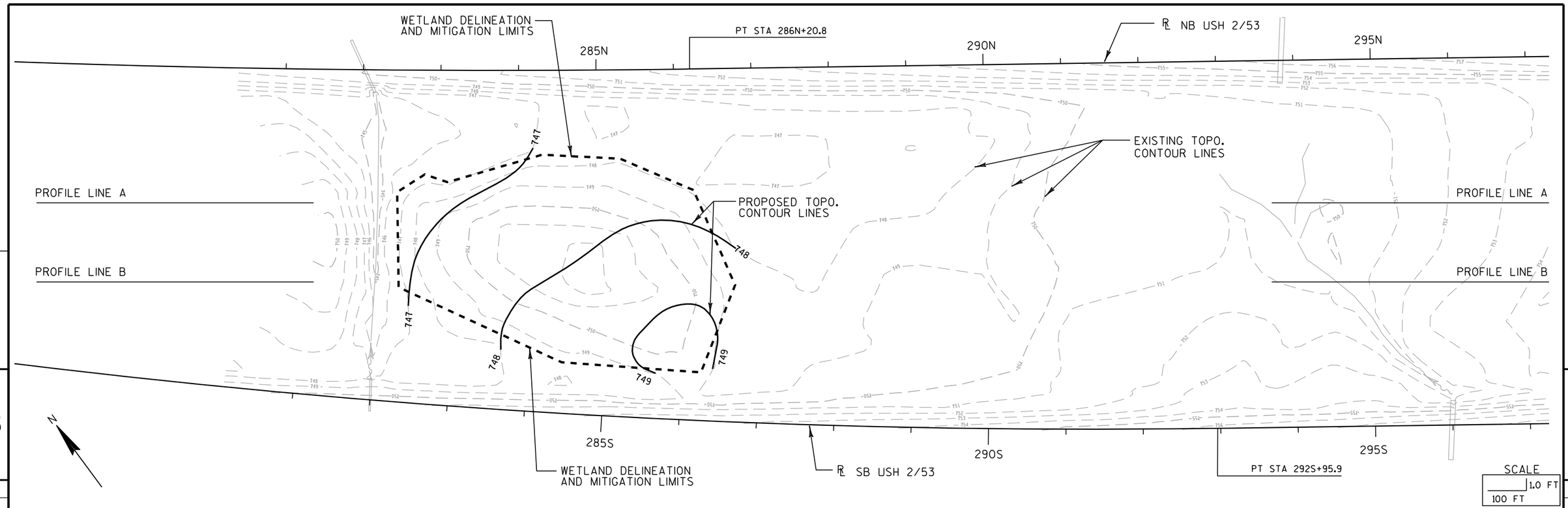


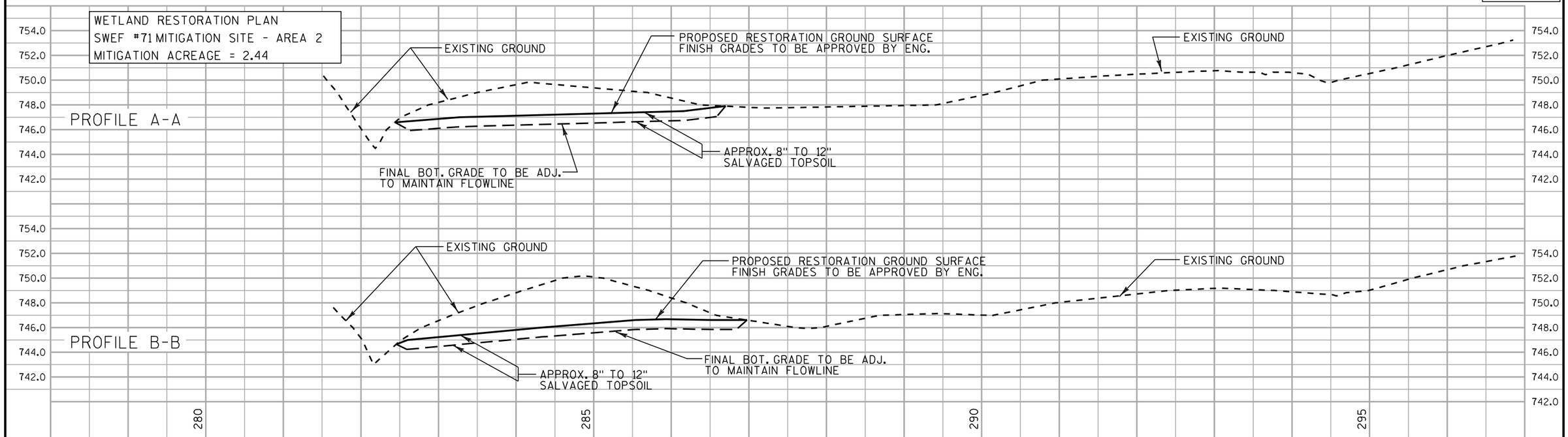
PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	WETLAND MITIGATION SITE PLAN - AREA 1	SHEET 230	E

FILE NAME : c:\Users\DOTWJK_NWRegion\005 NW DESIGN PROJECTS\11904371\DGNs\Finals 2010\11904371_10MITIGATION_PROFILE_3-11.dgn PLOT DATE : 17-MAY-2011 11:05 PLOT BY : dotwjk PLOT NAME : PLOT SCALE : 127.5:1

WISDOT/CADDS SHEET 40

Figure 6. Grading Plan





PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	WETLAND MITIGATION SITE PLAN - AREA 2	SHEET 231	E

FILE NAME : c:\Users\DOTWJK_NWRegion\005 NW DESIGN PROJECTS\11904371\DGNs\Finals 2010\11904371_10MITIGATION_PROFILE_3-11.dgn PLOT DATE : 05-MAY-2011 23:55 PLOT BY : dotwjk PLOT NAME : PLOT SCALE : 127.5:1

WISDOT/CADDS SHEET 40

LEGEND

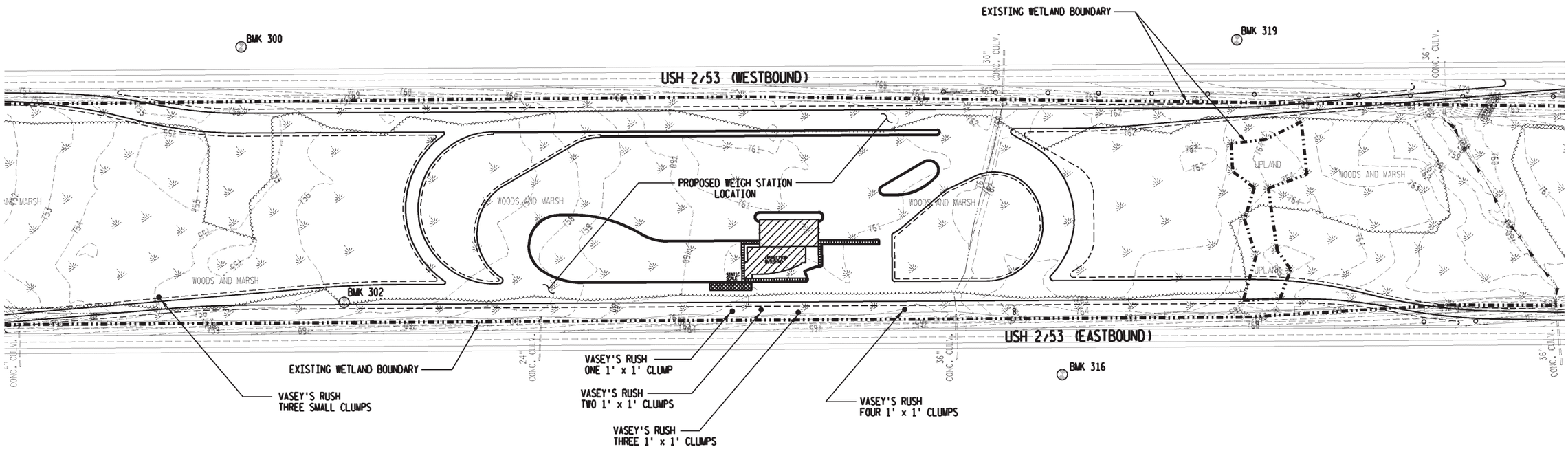
EXISTING WETLAND BOUNDARY

EXISTING TOPOGRAPHY -

INDEX CONTOUR 780

INTERMEDIATE CONTOUR 781

APPROXIMATE TES SPECIES LOCATION



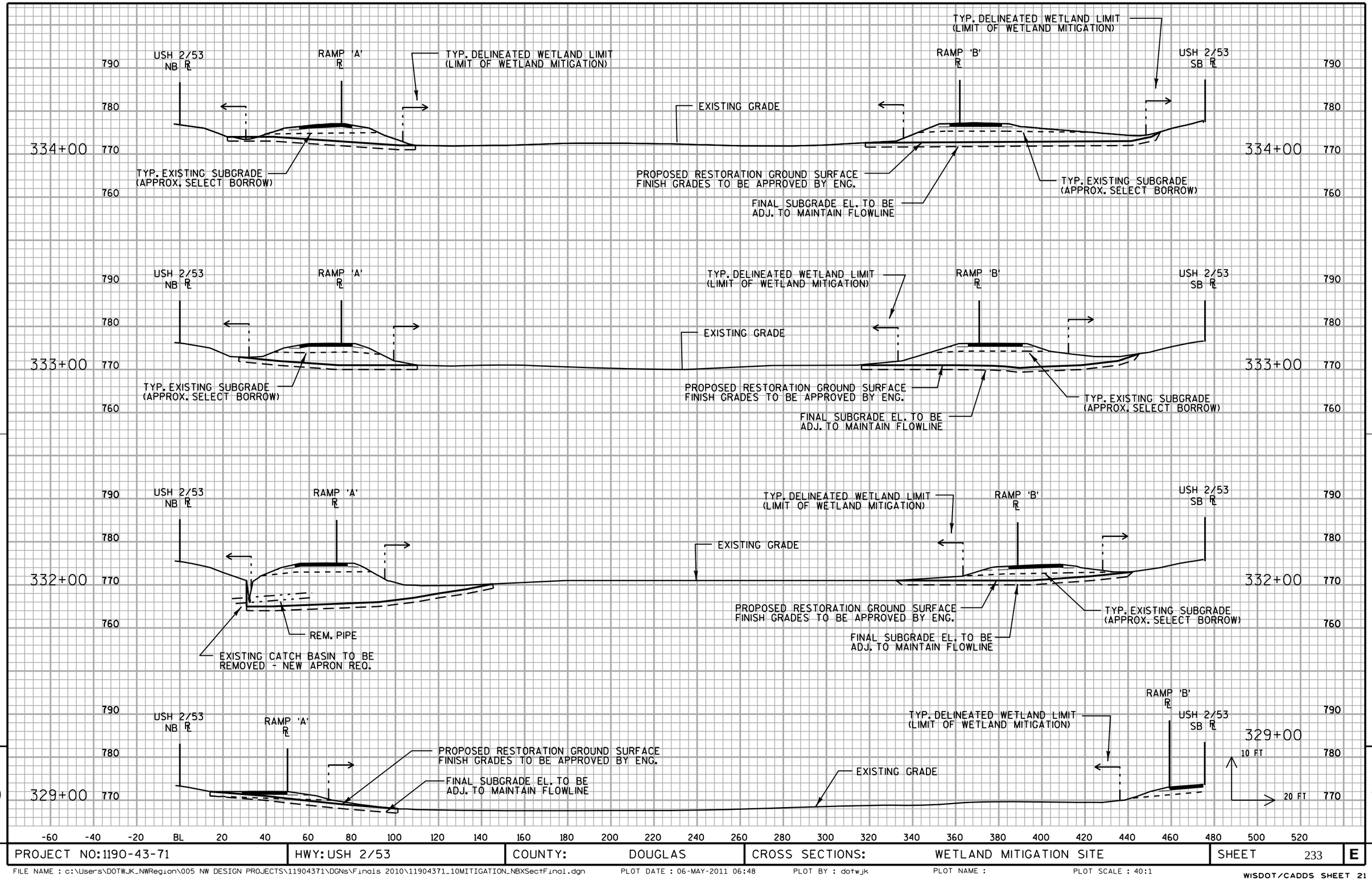
SCALE, FEET 0 100 200

STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS COUNTY	WENTWORTH SWEF #71 - FIGURE 1 TES SPECIES ASSESSMENT	SHEET NO: 232 E

FILE NAME: l:\work\43871\trans\gra\drawings\tes-assessment01.dgn
PLOT NAME: C:\TMP\\tes-assessment01-PDF.prf
PLOT DATE: Tue Sep 30 10:52:52 2003
PLOTTER NAME: msMs1PDF_11x17(22x34)
PEN TABLE: C:\TMP\fade2000-wet.tbl
Originator : Earth Tech
PLOT SCALE: 200.000000

WISDOT/CADDS SHEET 42

Figure 8. Project Cross Sections

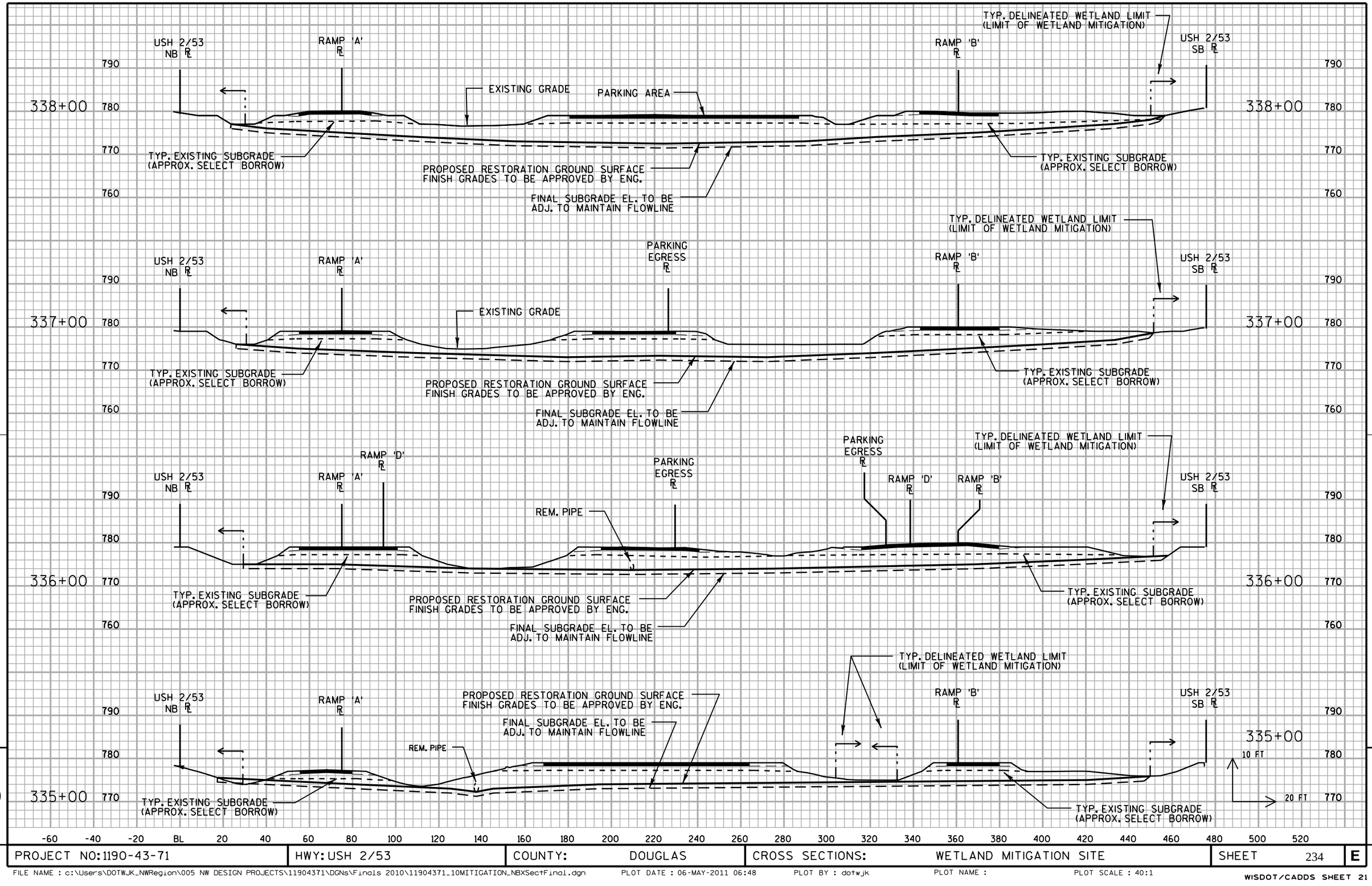


PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: WETLAND MITIGATION SITE	SHEET 233	E

FILE NAME : c:\Users\DOTWJK_NWRegion\005 NW DESIGN PROJECTS\11904371\DGNs\Finals 2010\11904371_10MITIGATION_NBXSectFinal.dgn PLOT DATE : 06-MAY-2011 06:48 PLOT BY : dotwjk PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 21

Figure 8. Project Cross Sections



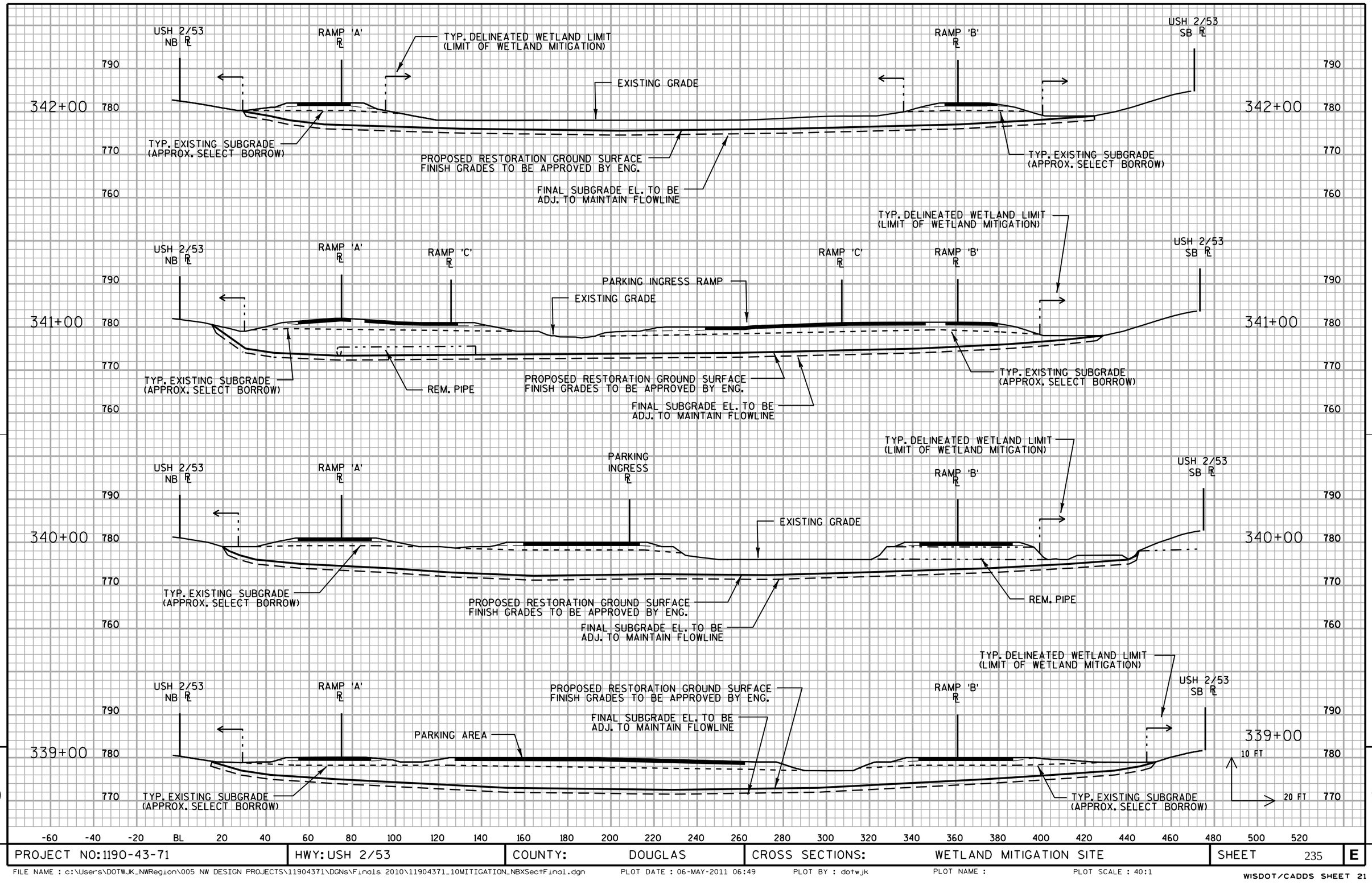
PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: WETLAND MITIGATION SITE	SHEET 234	E

FILE NAME : c:\Users\DOTWJK_NWRegion\005 NW DESIGN PROJECTS\11904371\DGNs\Finals 2010\11904371_10MITIGATION_NBXSectFinal.dgn PLOT DATE : 06-MAY-2011 06:48 PLOT BY : dotwjk PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 21

9

Figure 8. Project Cross Sections

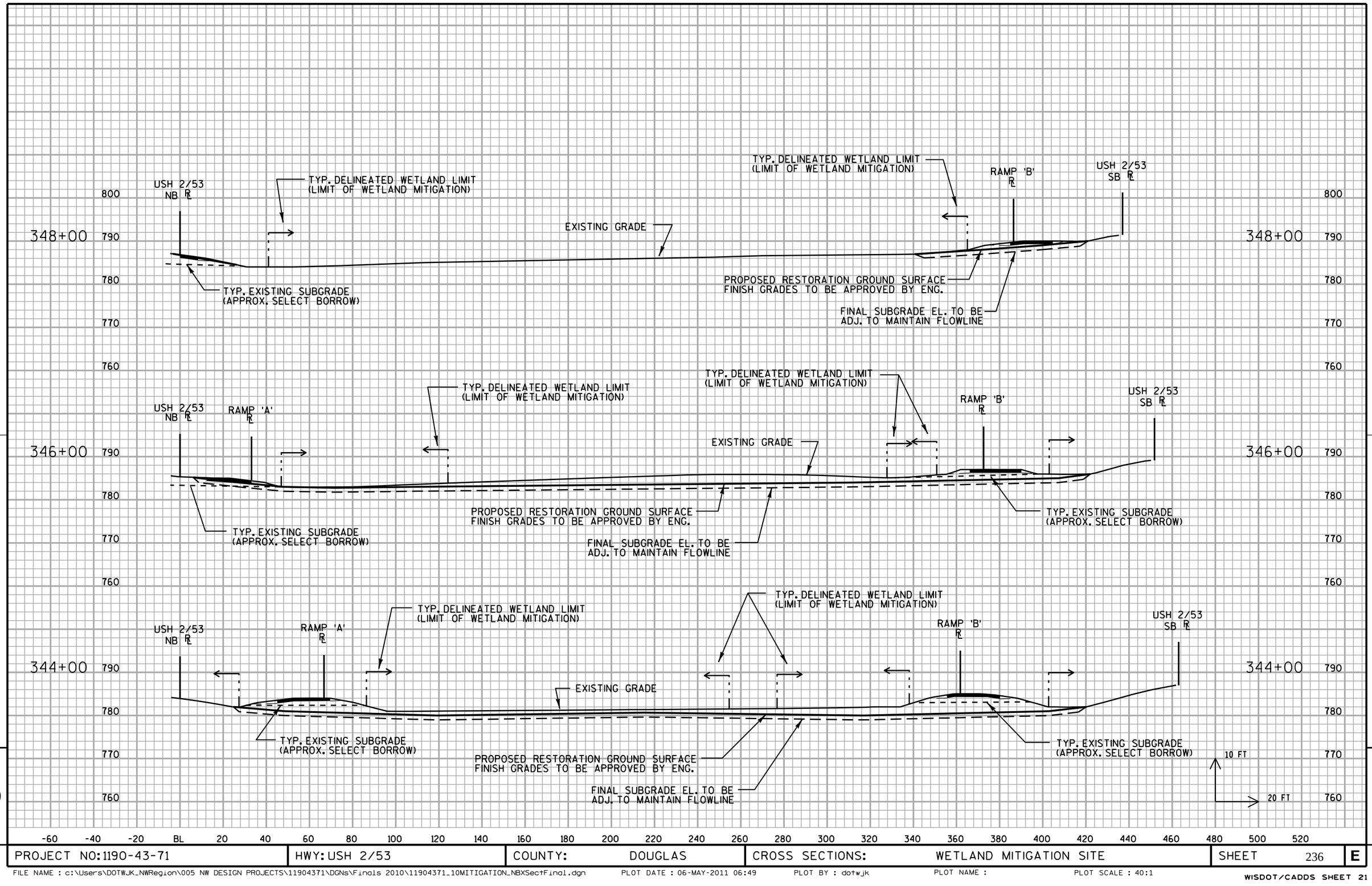


PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: WETLAND MITIGATION SITE	SHEET 235	E

FILE NAME : c:\Users\DOTWJK_NWRegion\005 NW DESIGN PROJECTS\11904371\DGNs\Finals 2010\11904371_10MITIGATION_NBXSectFinal.dgn PLOT DATE : 06-MAY-2011 06:49 PLOT BY : dotwjk PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 21

Figure 8. Project Cross Sections



PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: WETLAND MITIGATION SITE	SHEET 236	E

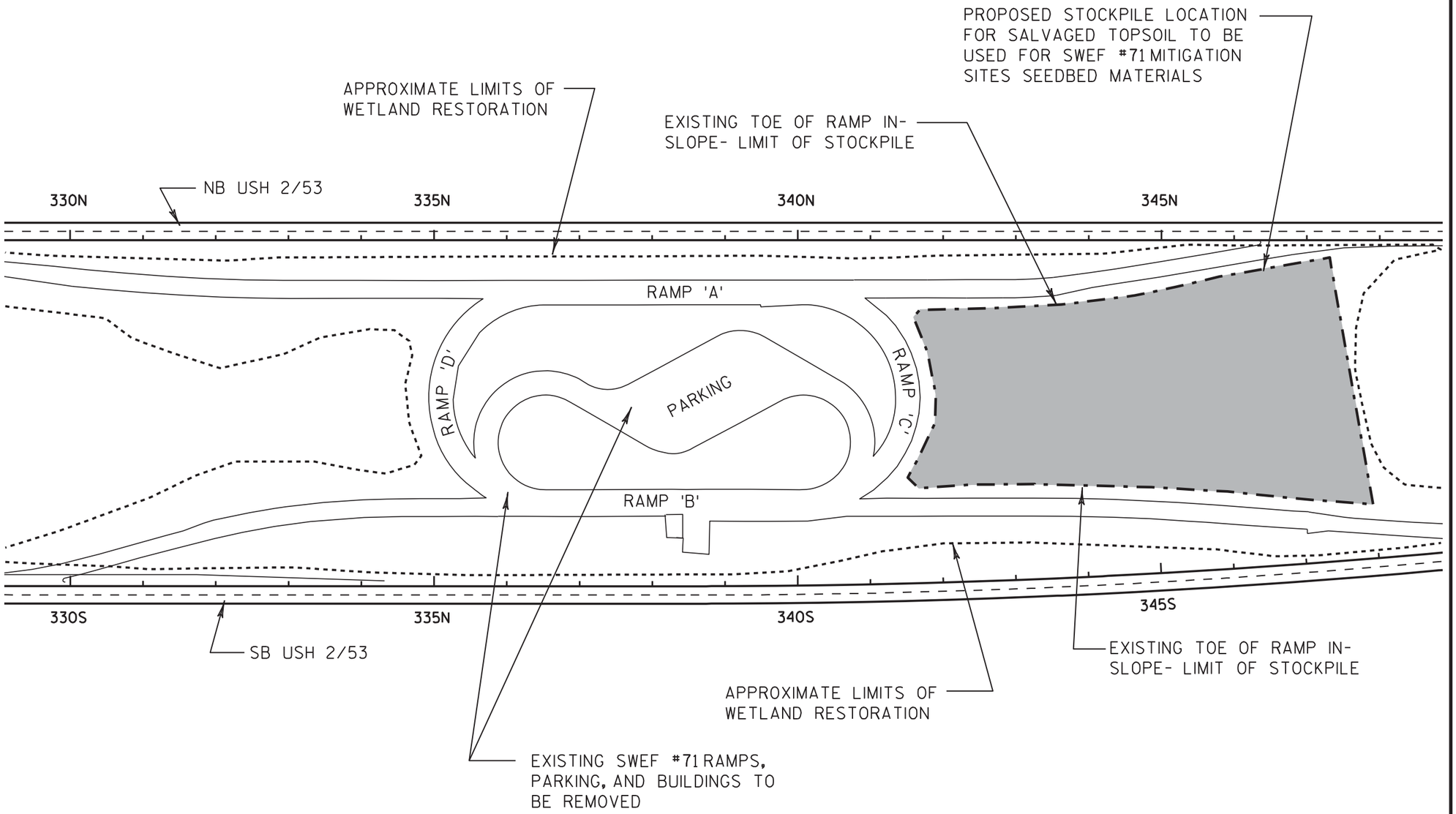
FILE NAME : c:\Users\DOTWJK_NWRegion\005 NW DESIGN PROJECTS\11904371\DGNs\Finals 2010\11904371_10MITIGATION_NBXSectFinal.dgn PLOT DATE : 06-MAY-2011 06:49 PLOT BY : dotwjk PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 21

Figure 9. Proposed Stockpile Location

NOTES:

1) STOCKPILE LOCATION FOR SLAVAGED TOPSOIL TO BE USED FOR SWEF #71 MITIGATION SITE SEEDBED MATERIALS.
2) LIMITS OF STOCKPILE SHALL NOT EXTEND INTO THE IN-SLOPES OF THE EXISTING RAMPS.
3) STOCKPILE TO BE TEMPORARYALIY SEEDED TO MAINTAIN INTEGRITY OF SEEDBED MATERIALS.
4) STOCKPILE SIDE SLOPES SHALL NOT EXCEED 4V:1H.
5) STOCKPILE HEIGHT SHALL NOT EXCEED 6 FEET.
6) MATERIALS MAY BE STOCKPILED ON THE EXISTING GROUND SURFACE OR THE FINAL SUBGRADE OF THE PROPOSED WETLAND RESTORATION.



PROJECT NO: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	STOCKPILE LOC. (SALVAGED TOPSOIL)	E

PLOT SCALE : 197.121402:1

FILE NAME : c:\Users\DOTWJK_NWRegion\005 NW DESIGN PROJECTS\11904371\DGNs\Finals 2010\11904371_10MITIGATION_overall_4_11.dgn

PLOT DATE : 11-MAY-2011 14:00

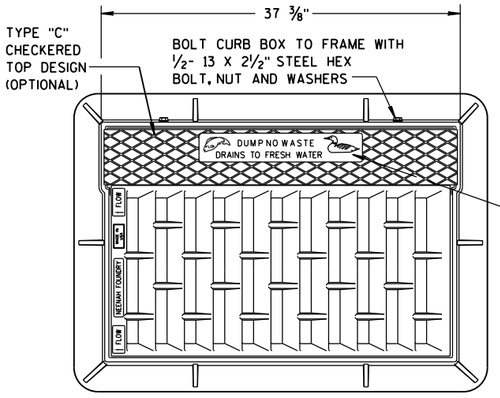
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E04-02	SOD OR MASONRY AND SOD DITCH CHECKS
08E05-02	SODDED BACKSLOPE FLUME AND INTERCEPTING EMBANKMENT
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C05-08	CONCRETE CONTROL CABINET BASES
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09E01-12D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09F04-03	LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX
09F05-03	LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)
09F09-03	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
09F14-02	LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULL BOX 45 DEGREE ELBOWS TO PULL BOX
09F15-03A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-03B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
10A01-02	ELECTRICAL HANDHOLE WIRING
10A02-02	IDENTIFICATION PLAQUES LIGHT POLES
10A05-02	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10A06-02	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES GROUNDED NEUTRAL SYSTEMS
10A07-02	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES PHASE-TO-PHASE SYSTEMS
11B02-02	CONCRETE MEDIAN NOSE
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C17-01B	CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02C	CONCRETE PAVEMENT JOINT TIES
14A02-01	TREE PLANTING DETAIL
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-02	FLEXIBLE DELINEATOR POST
15A06-02	DELINEATOR LAYOUT
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C07-12A	PAVEMENT MARKING SYMBOLS

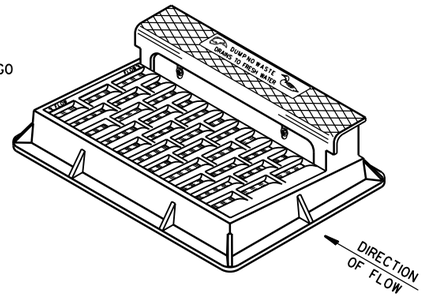
6

Standard Detail Drawing List

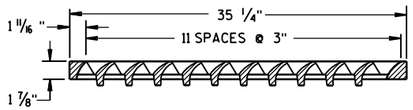
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C18-03	MEDIAN ISLAND MARKING
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-04	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

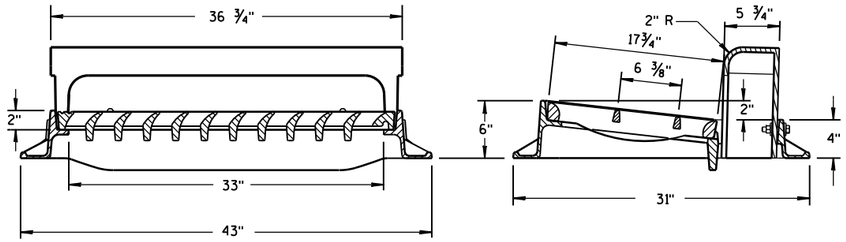


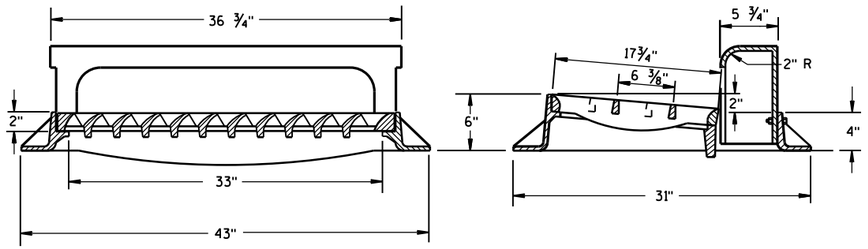
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

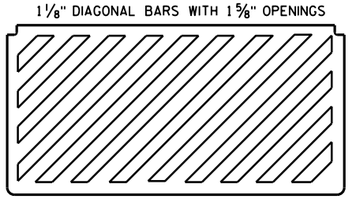






TYPE "H"

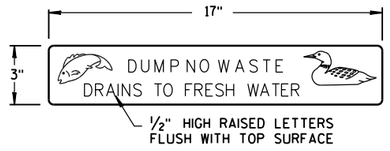
NOTE: EITHER CASTING IS ACCEPTABLE



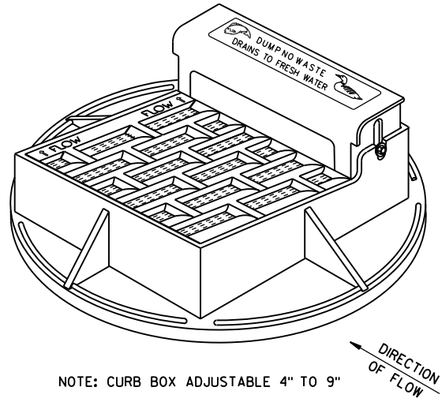
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

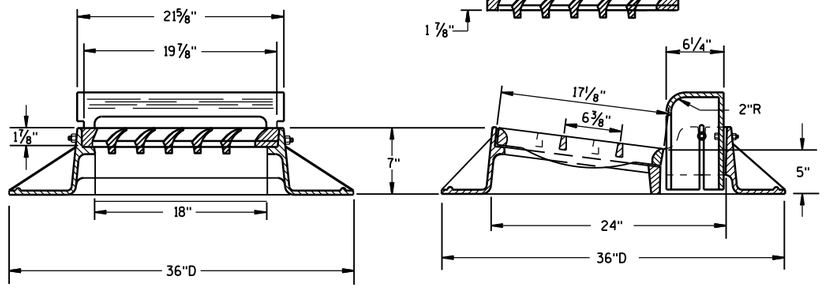


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



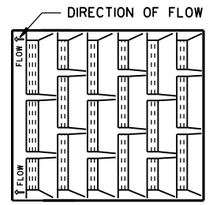
TYPE "A"

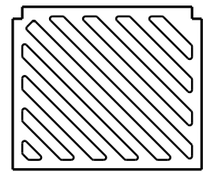
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

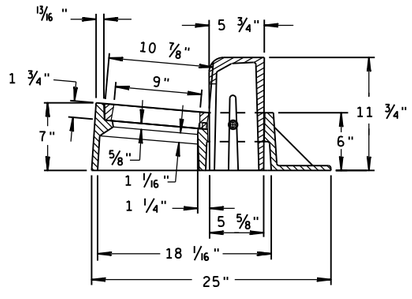


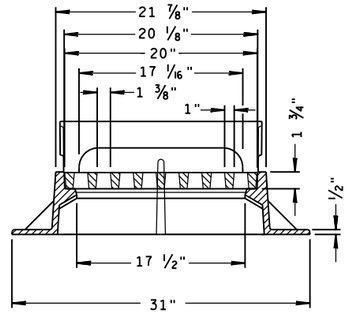


SPECIAL GRATE FOR TYPE "A" COVER

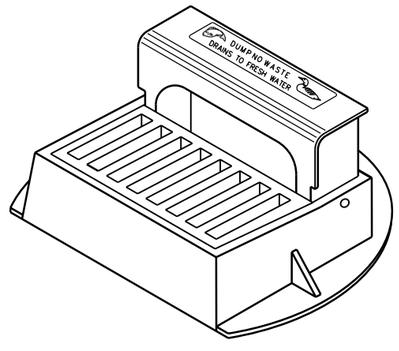
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



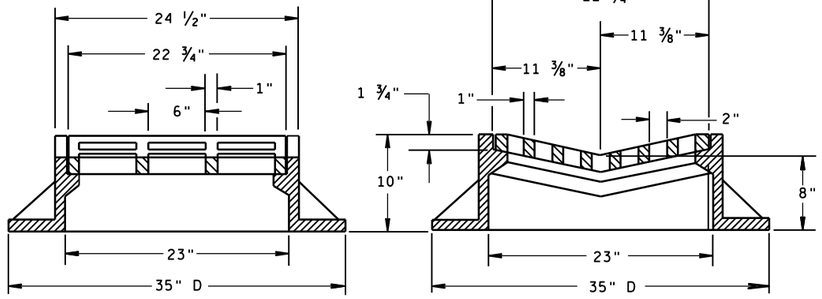
INLET COVERS TYPE A, H, A-S, H-S & Z

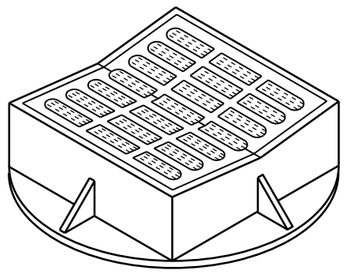
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

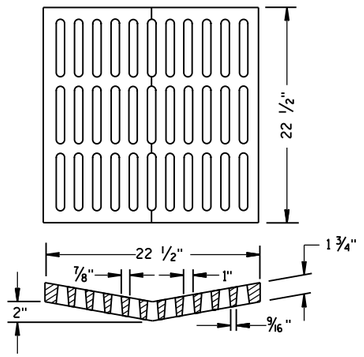
6

S.D.D. 8 A 5-19a



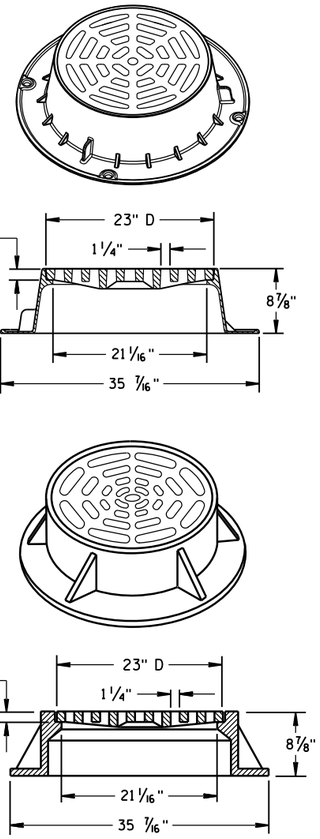


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

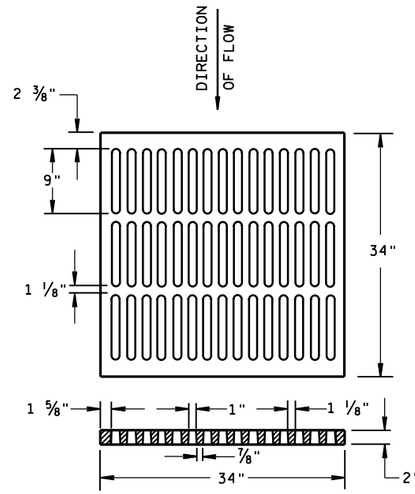
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

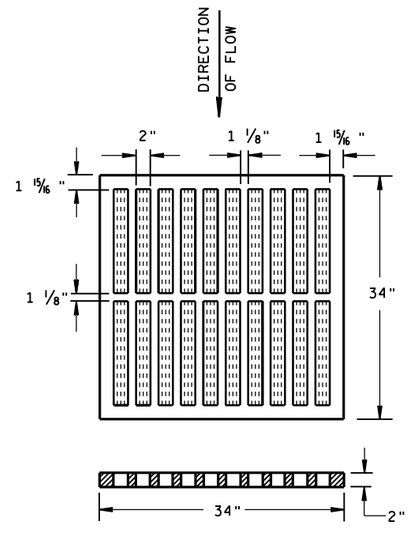
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



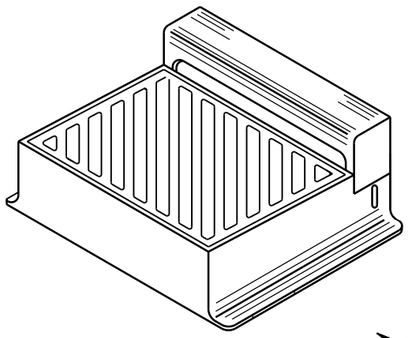
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

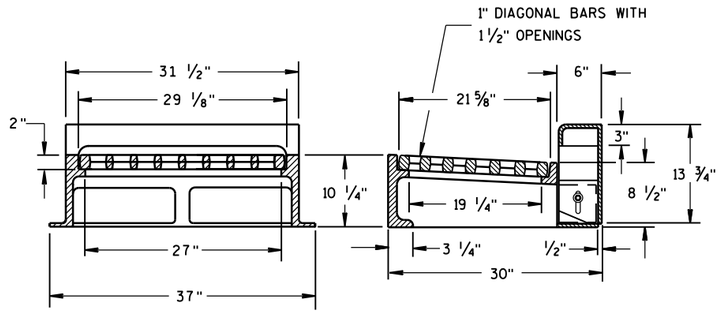


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

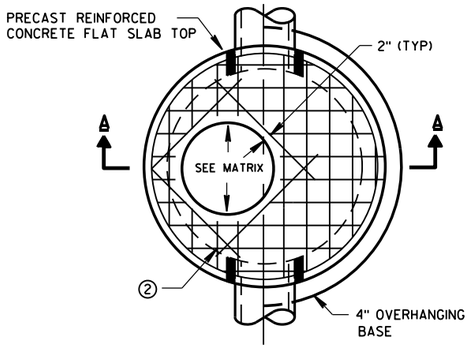
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

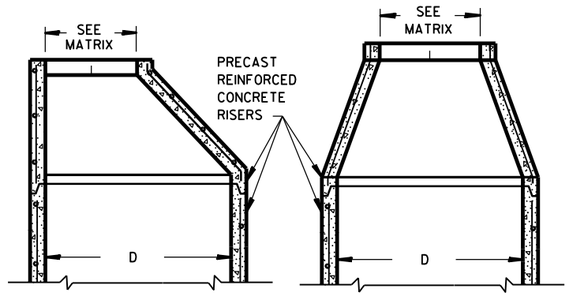
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 A 5-19b

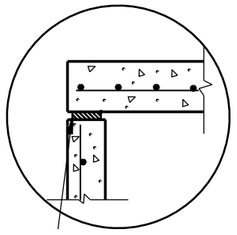


PLAN VIEW CIRCULAR OPENING

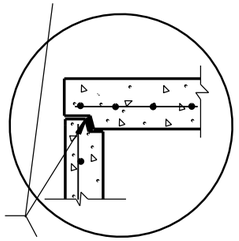


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

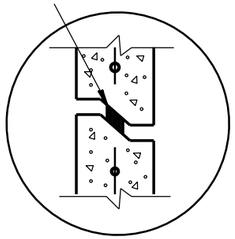


TOP WITH PLAIN END JOINT



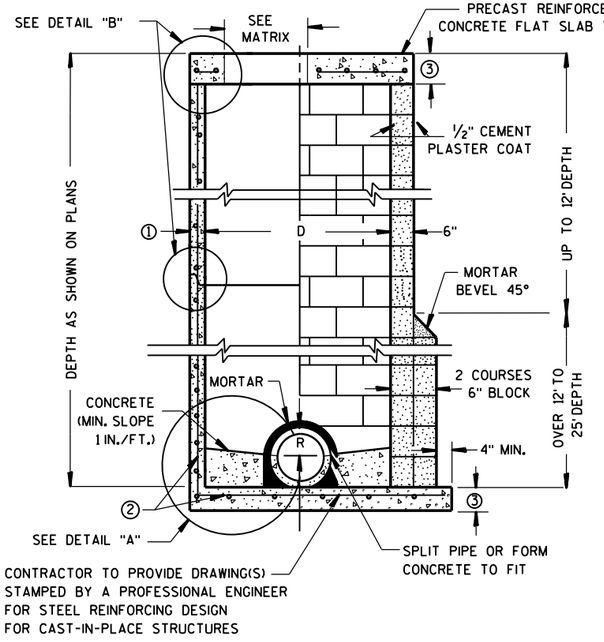
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



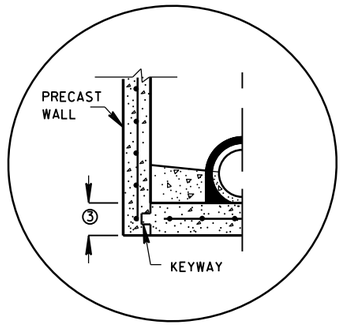
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

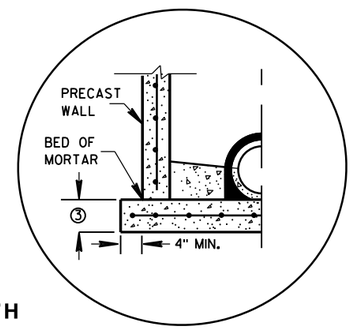


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

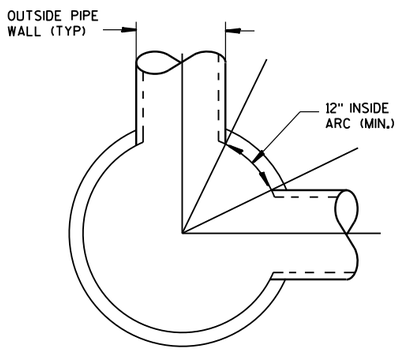


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

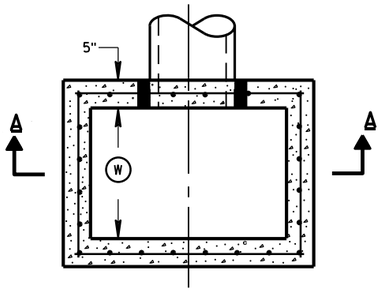
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

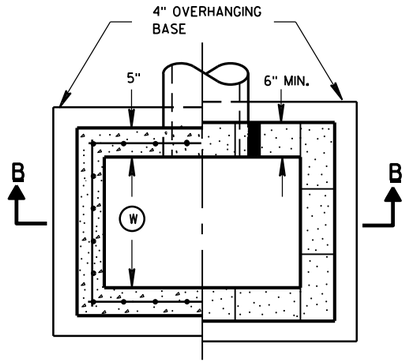
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

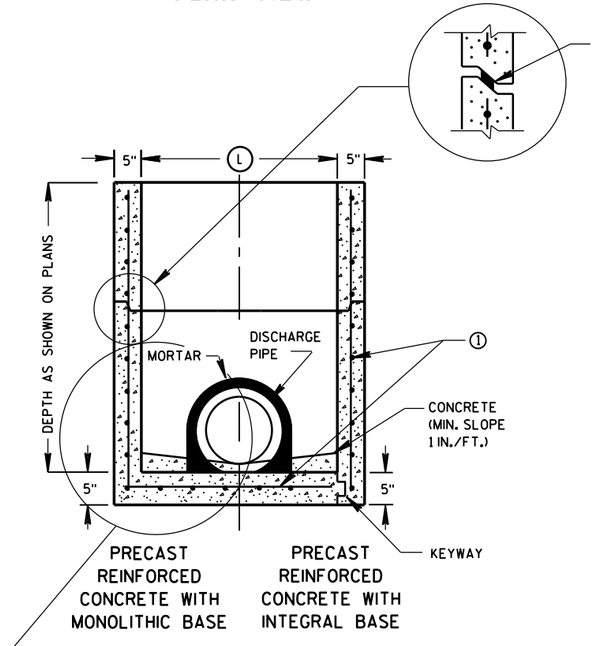
6
S.D.D. 8 B 9-1



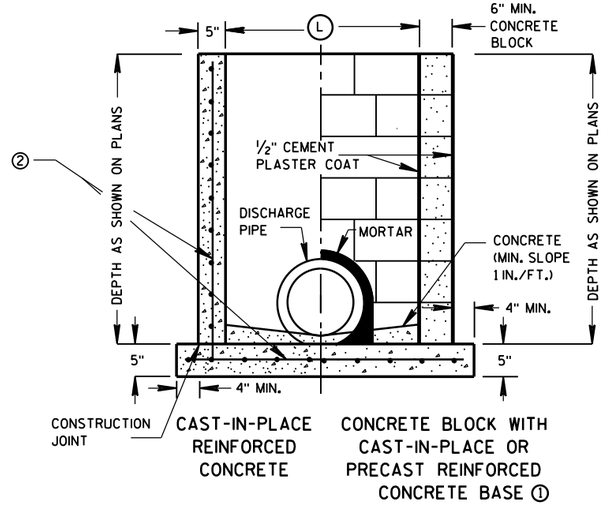
PLAN VIEW



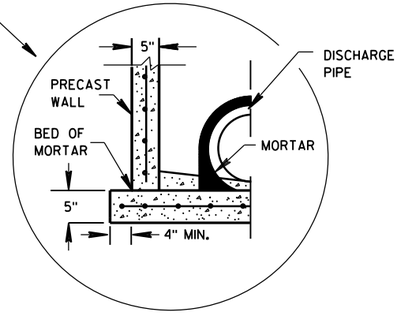
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

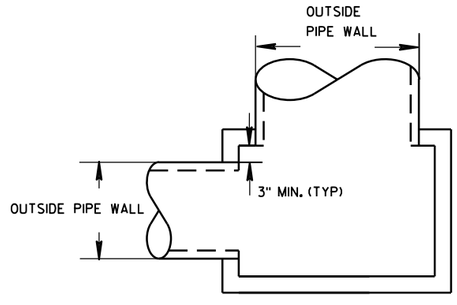
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

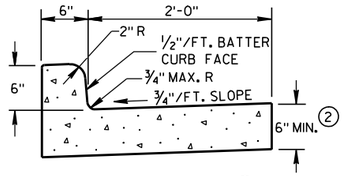
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

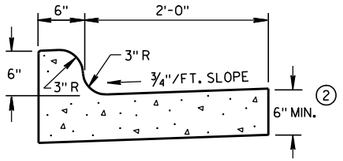
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

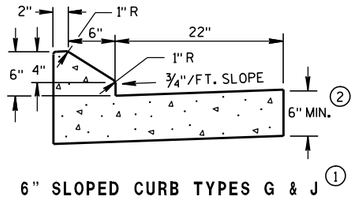
6
S.D.D. 8 C 7-1



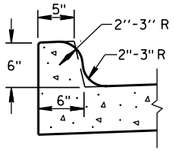
TYPES A & D (1)



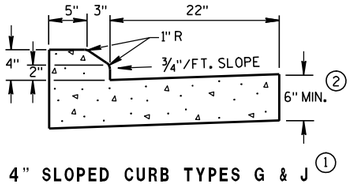
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

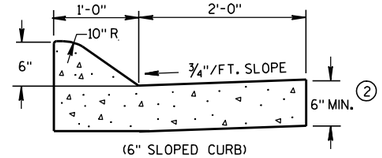


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

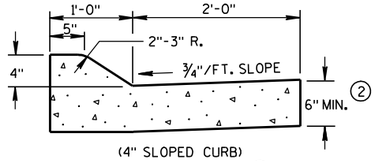


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

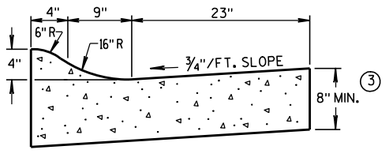


(6" SLOPED CURB)



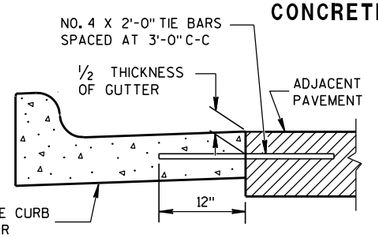
(4" SLOPED CURB)

TYPES A & D (1)

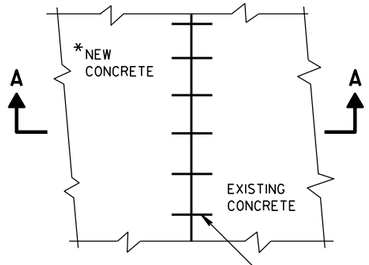


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

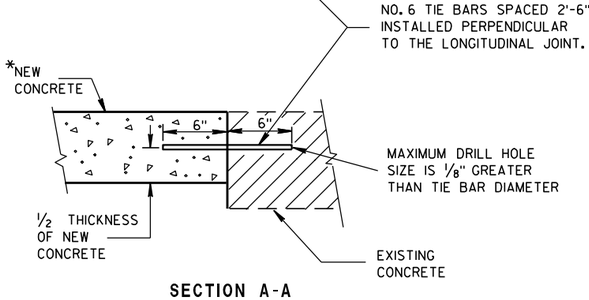


TYPICAL TIE BAR LOCATION (1)



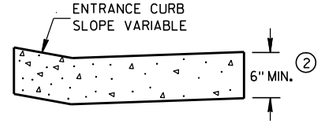
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.



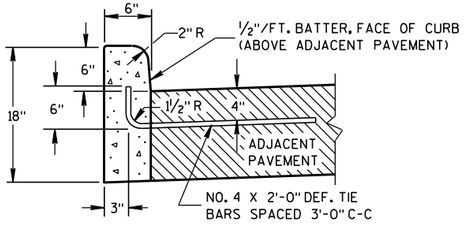
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



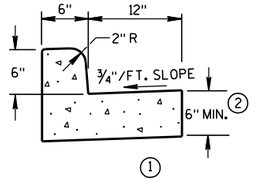
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



(1)

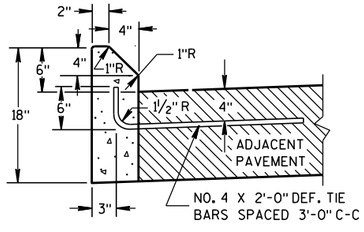
TYPES A & D



(1)

TYPES A & D

CONCRETE CURB & GUTTER 18"



(1)

TYPES G & J

CONCRETE CURB

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

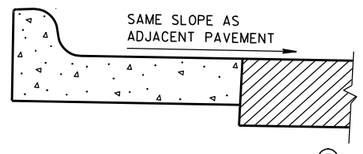
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

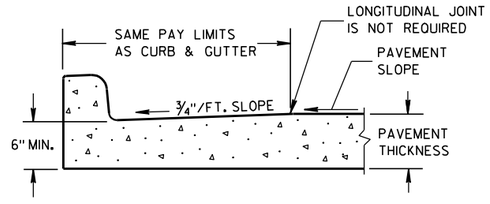
(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

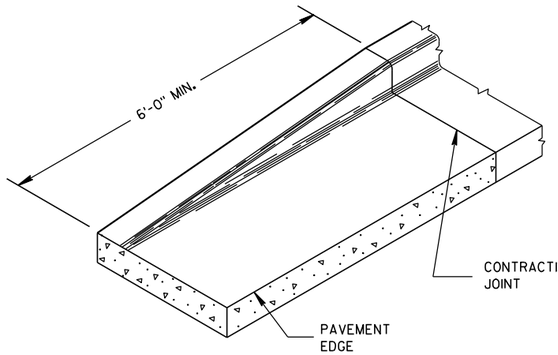


REVERSE SLOPE GUTTER (5)

(TYPICAL FOR ALL CURB & GUTTER TYPES)



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

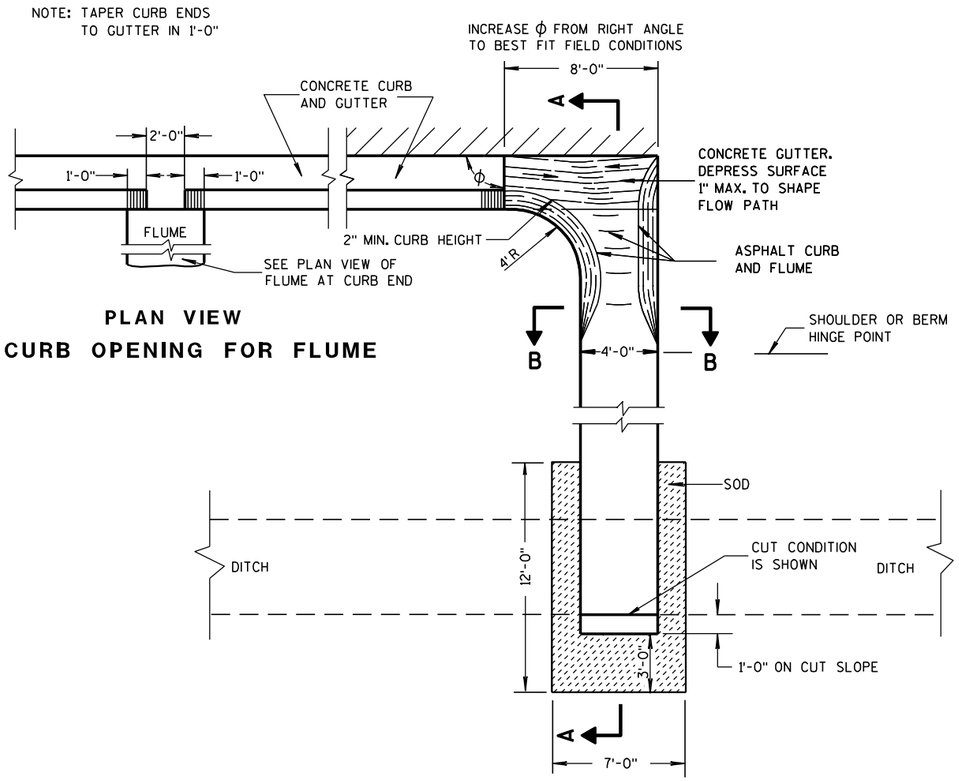
6

S.D.D. 8 D 1-17

6

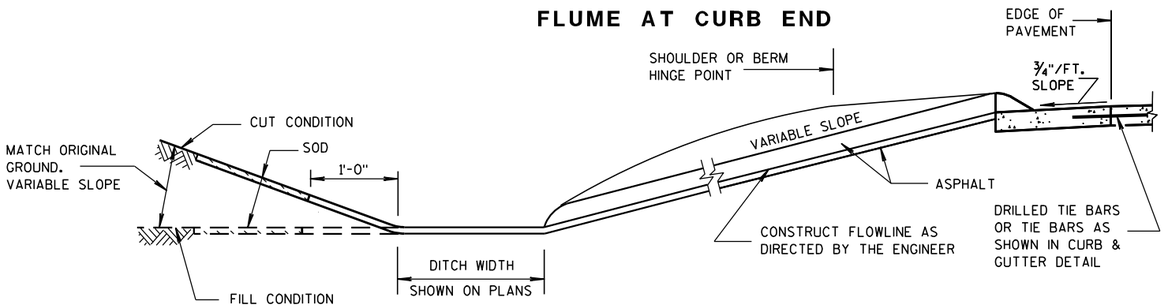
S.D.D. 8 D 1-17

ASPHALTIC FLUME

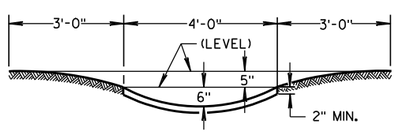


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

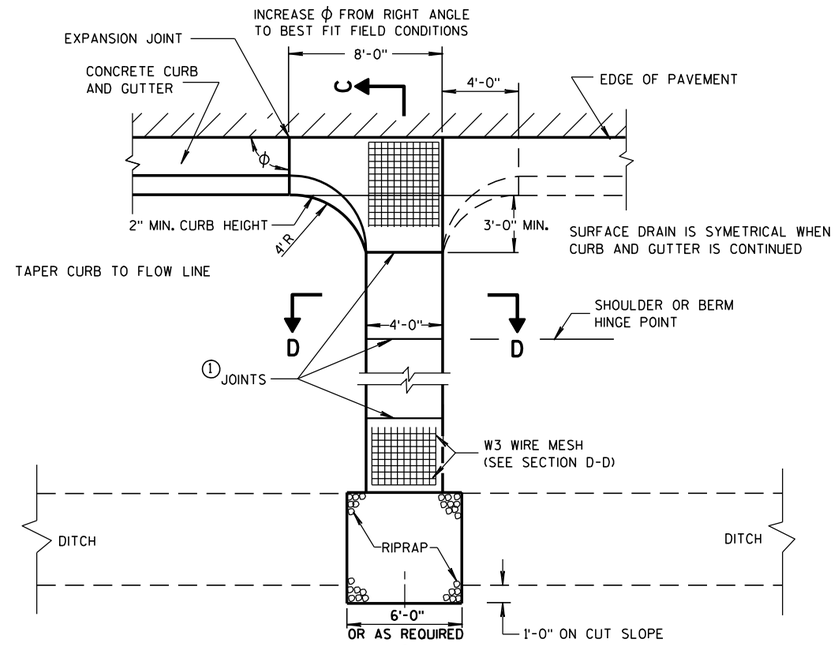
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

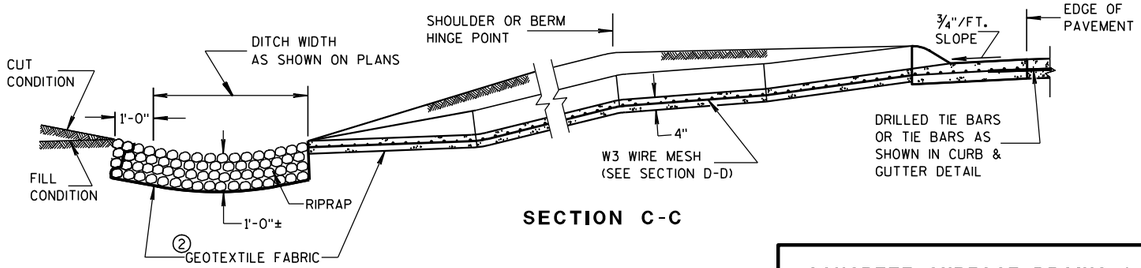
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

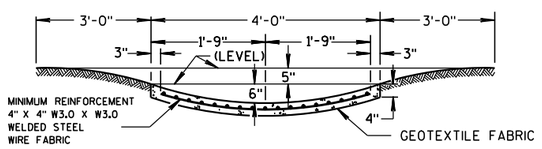
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C

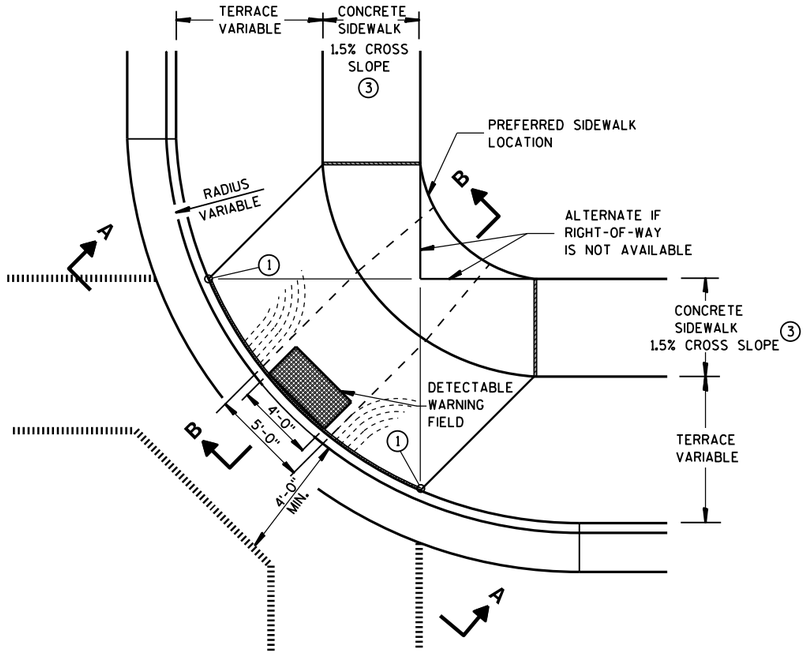


SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

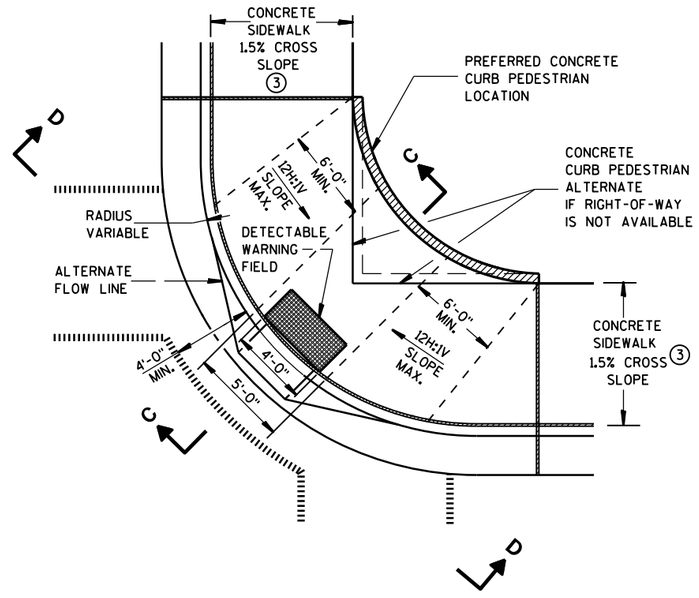
APPROVED
9-4-08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
245
MENT
FHWA



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

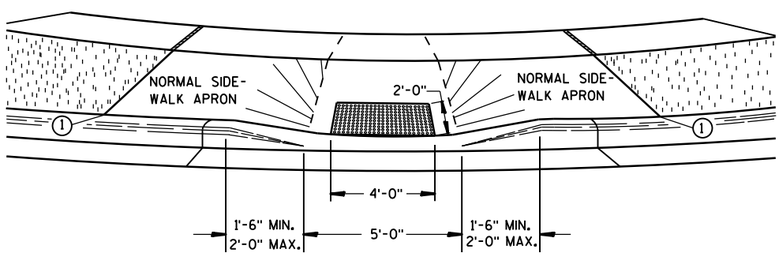
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

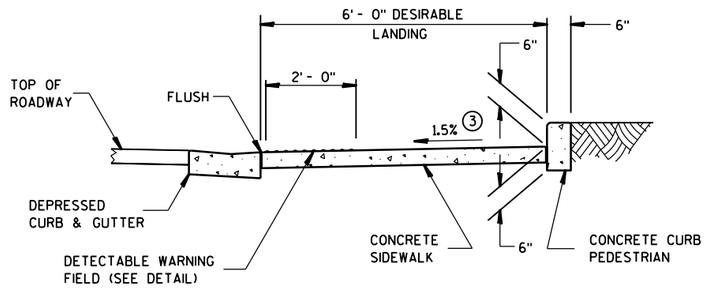
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

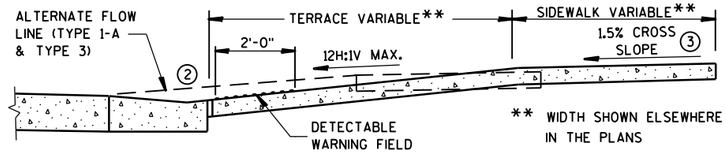
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



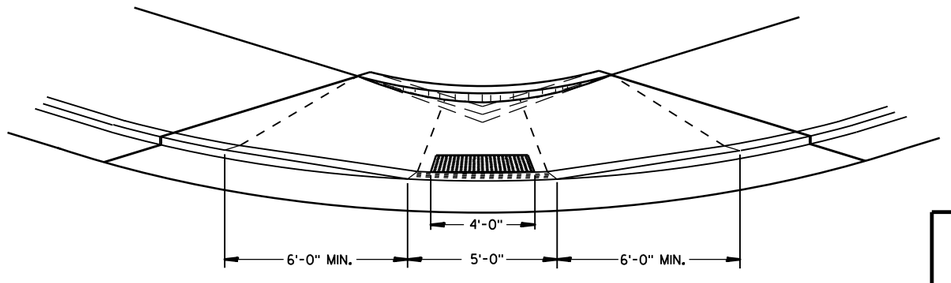
VIEW A-A



SECTION C-C



SECTION B-B



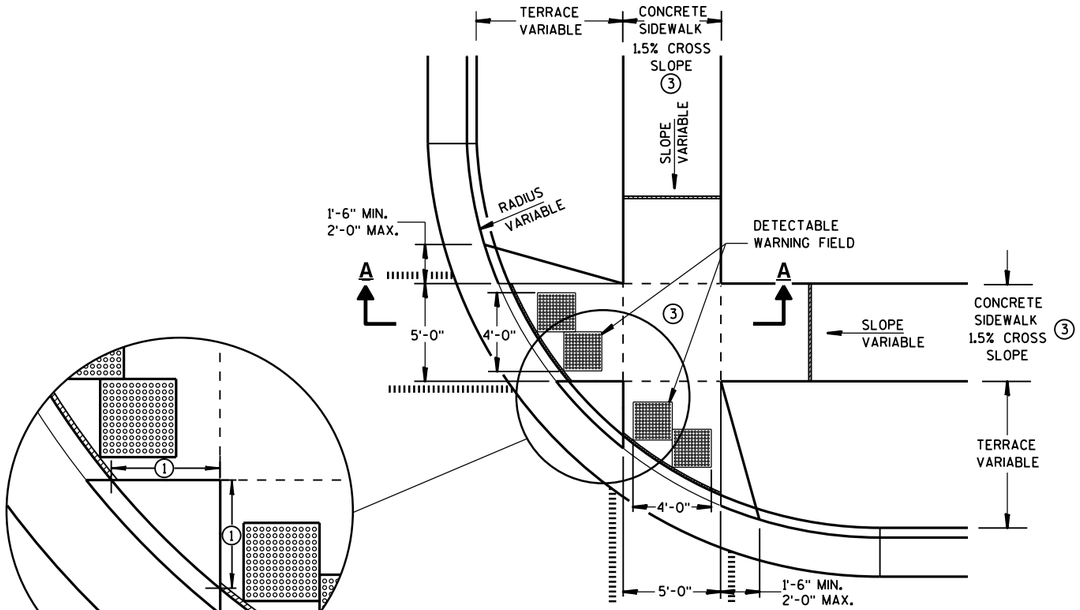
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

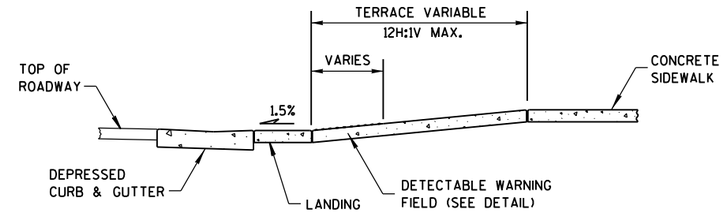
S.D.D. 8 D 5-15a



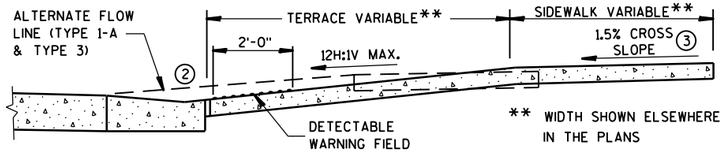
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

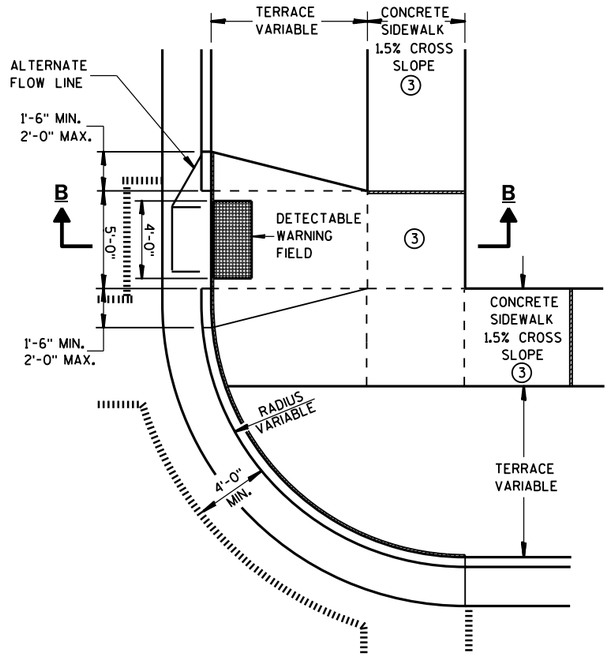
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

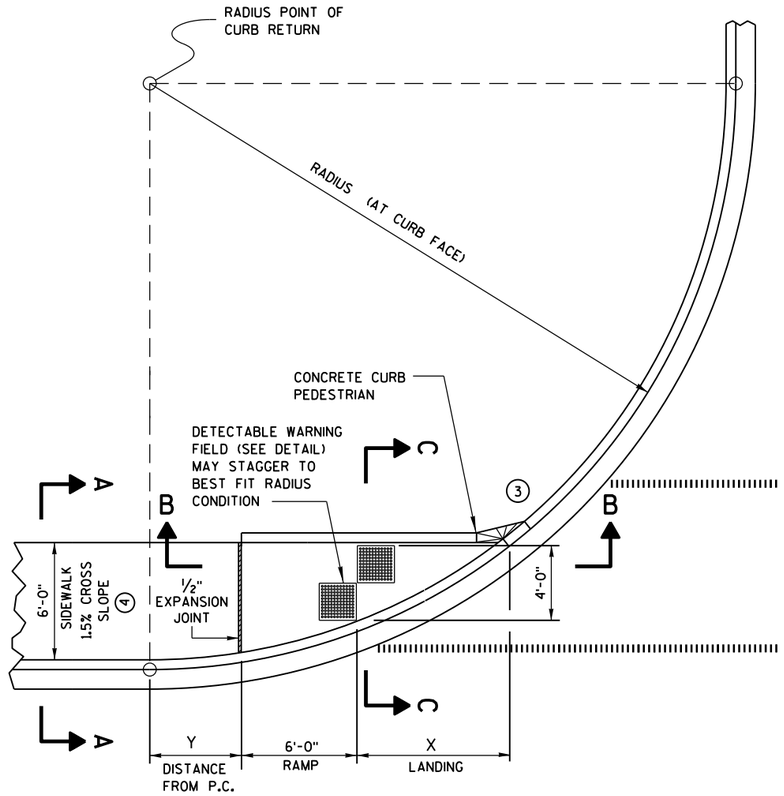
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

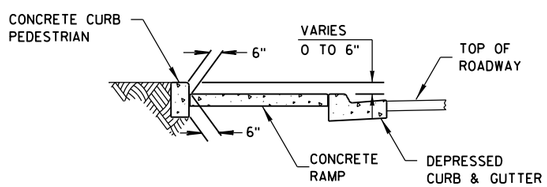
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

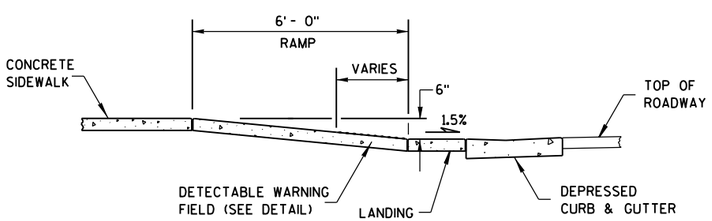
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



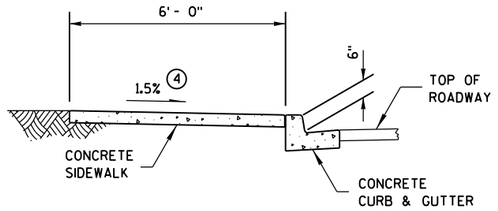
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

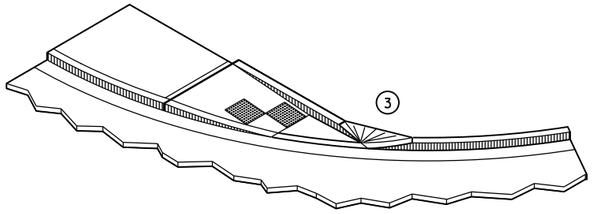
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

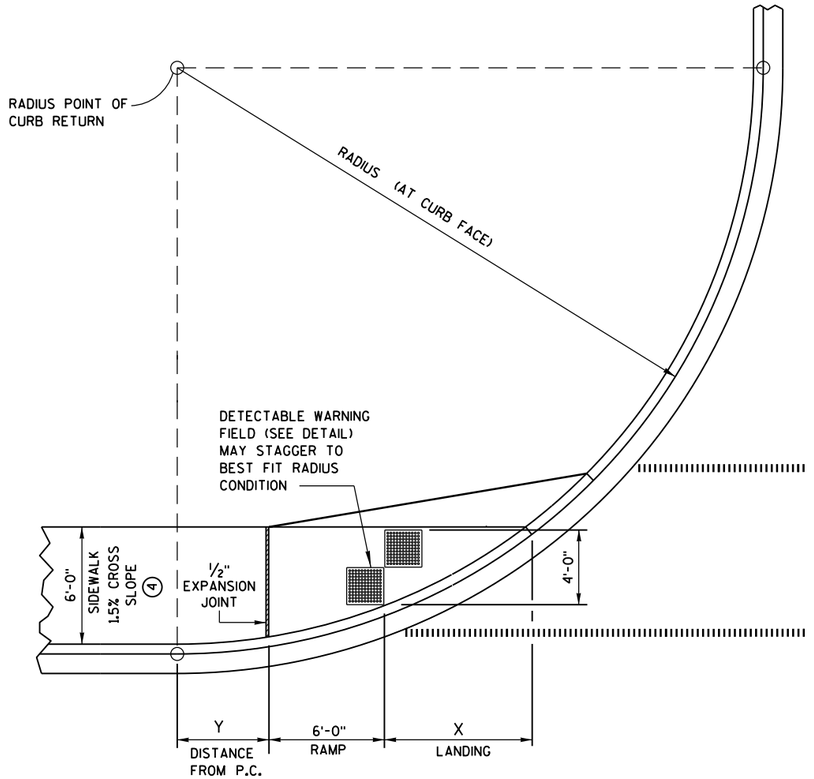
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

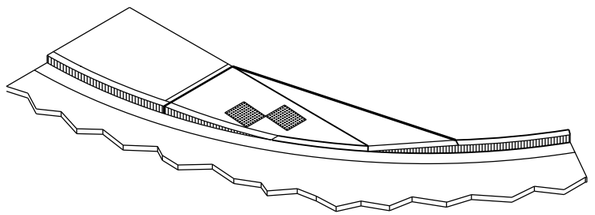
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

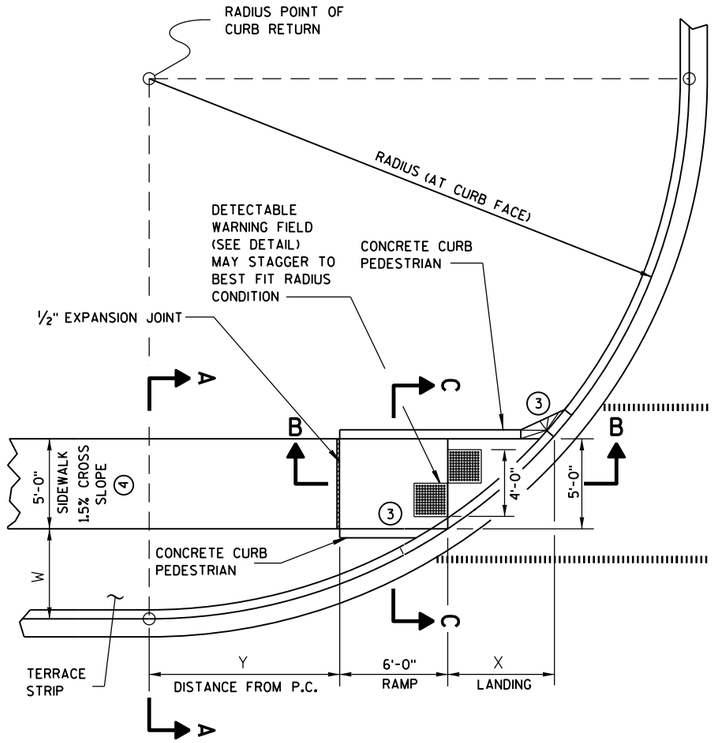
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

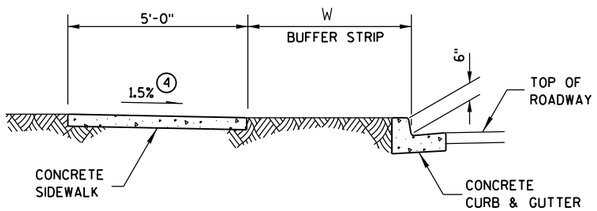
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

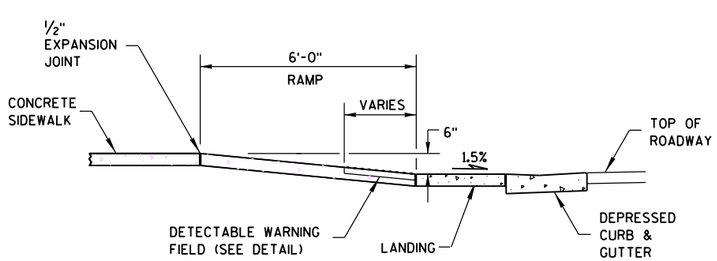
S.D.D. 8 D 5-15c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



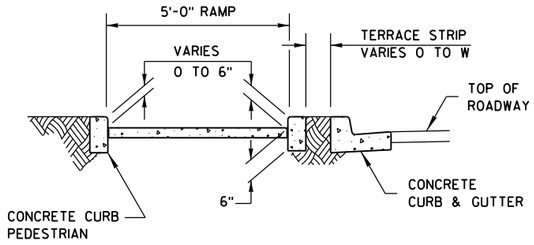
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

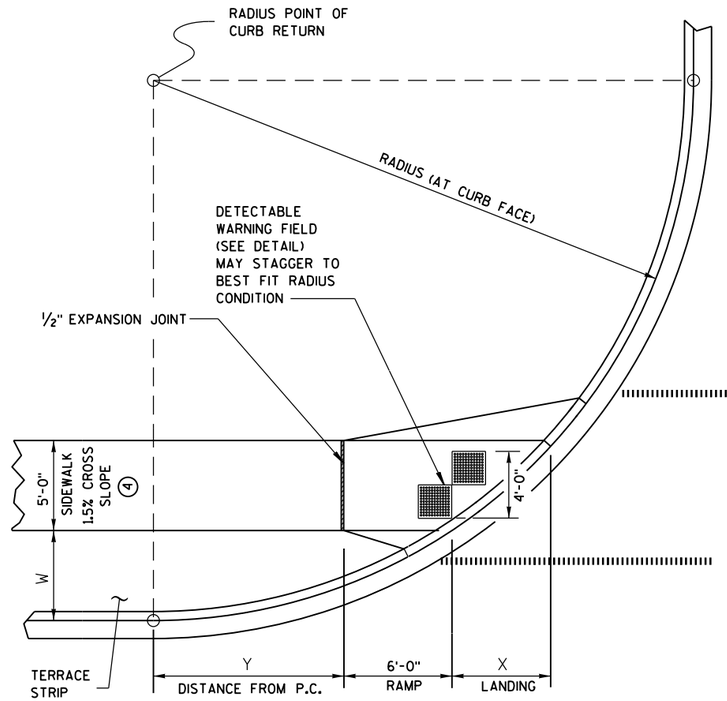
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

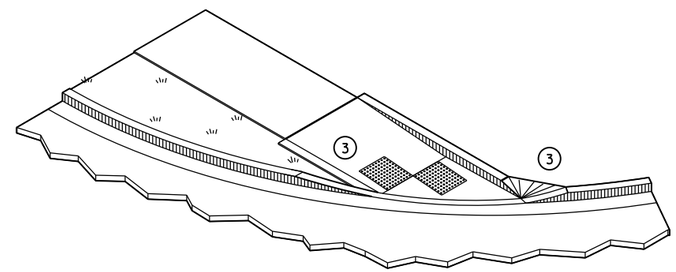
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

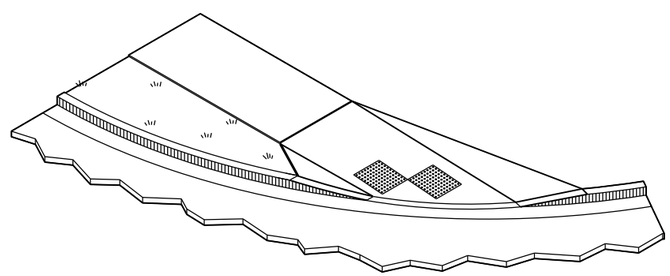
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



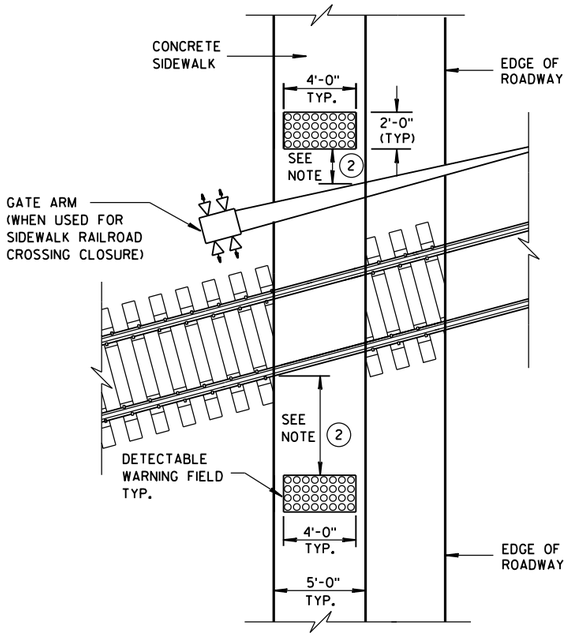
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

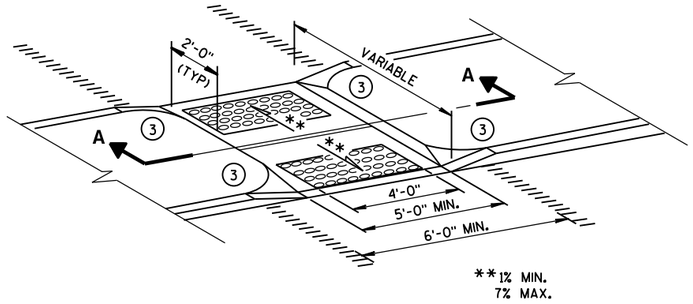
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

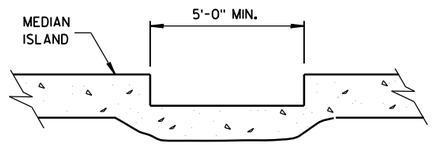
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

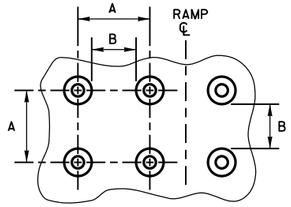
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



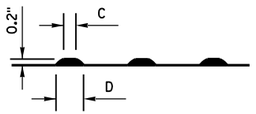
SECTION A-A



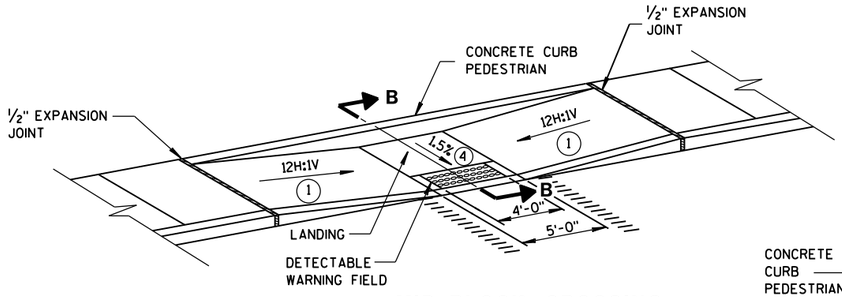
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

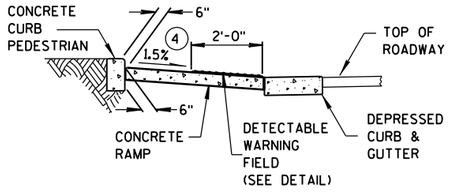
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

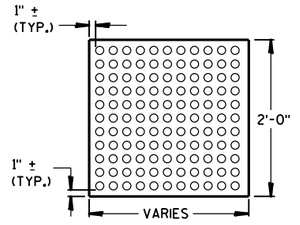


MID-BLOCK CROSSING
TYPE 7A



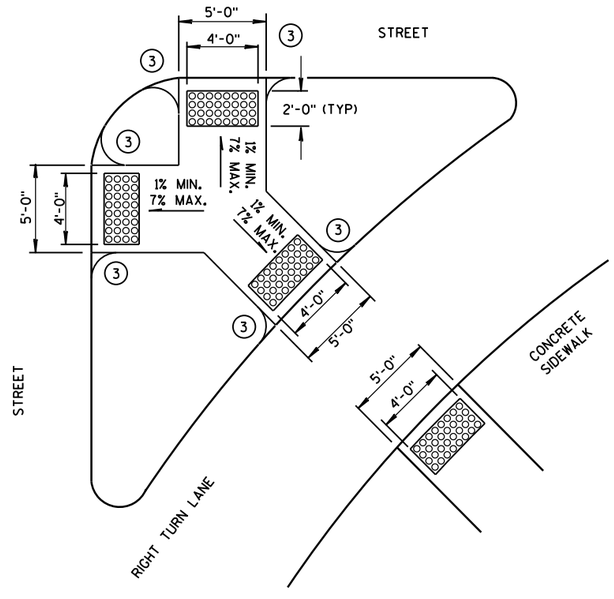
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

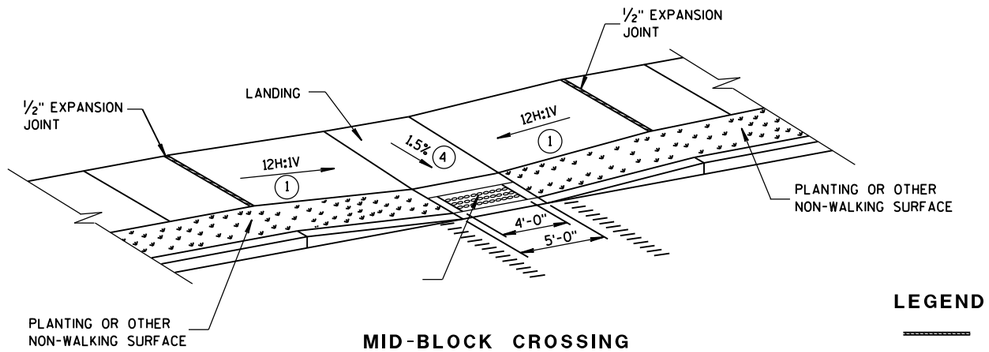


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

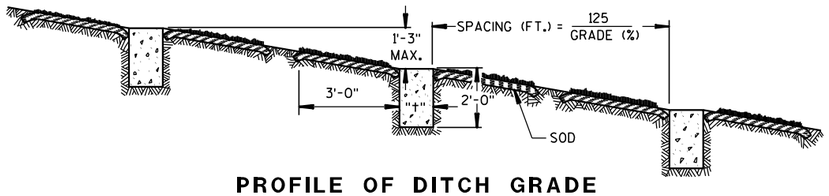
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

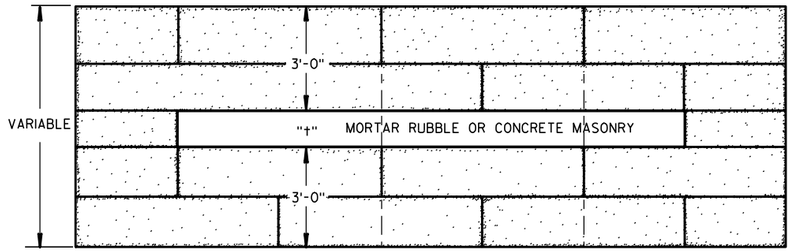
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 D 5-15e

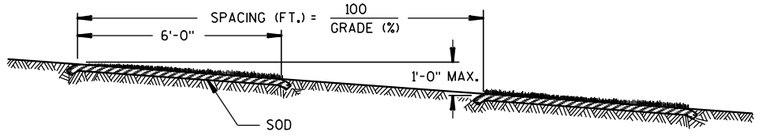


PROFILE OF DITCH GRADE

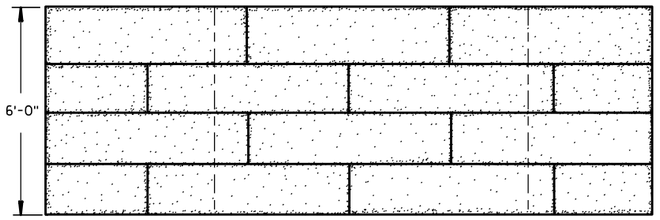


PLAN VIEW SHOWING MASONRY AND SOD

"+" - MASONRY THICKNESS SHALL BE 0'-9" FOR CONCRETE AND 1'-0" FOR MORTAR RUBBLE.



PROFILE OF DITCH GRADE



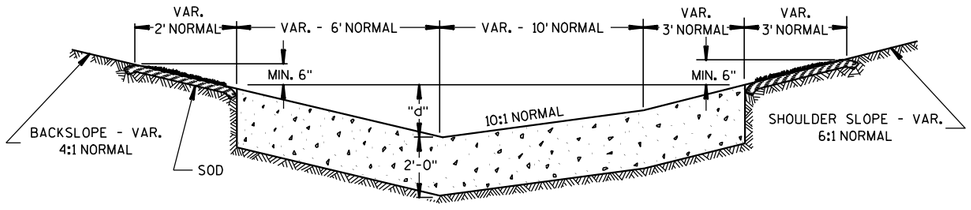
PLAN VIEW SHOWING SOD

GENERAL NOTES

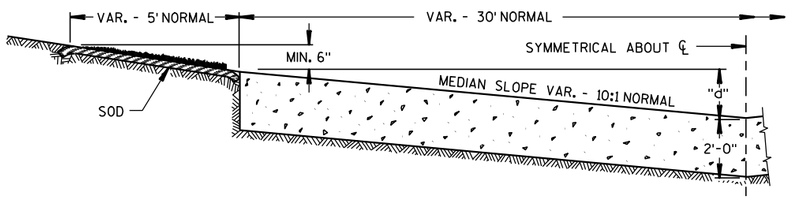
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALTERNATE DESIGNS FOR DITCH CHECKS, OF THE MATERIAL OR COMBINATION OF MATERIALS SHOWN HEREON, MAY BE USED UPON WRITTEN PERMISSION OF THE ENGINEER.

SOD STRIPS FOR DITCH CHECKS MAY BE PLACED EITHER TRANSVERSELY OR LONGITUDINALLY TO THE DIRECTION OF WATER FLOW.



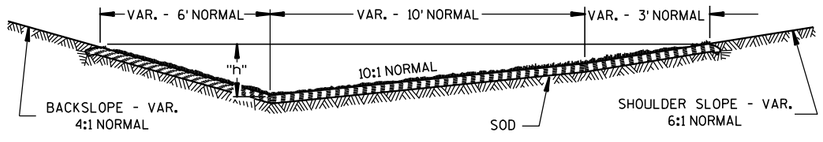
SIDE DITCH CROSS SECTION



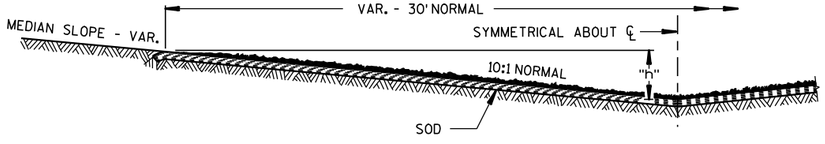
MEDIAN DITCH CROSS SECTION

"d" - THE MINIMUM DEPTH OF THE MASONRY PORTION OF THE DITCH CHECKS SHALL BE EQUAL TO THE MAXIMUM DEPTH OF FLOW. THE NORMAL "d" WILL BE 1'-6".

MASONRY AND SOD DITCH CHECKS



SIDE DITCH CROSS SECTION



MEDIAN DITCH CROSS SECTION

"h" - THE MINIMUM HEIGHT OF DITCH TO BE SODDED SHALL BE EQUAL TO THE MAXIMUM DEPTH OF FLOW PLUS 6". THE NORMAL "h" WILL BE 1'-6".

SOD DITCH CHECKS

SOD OR MASONRY AND SOD DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/7/71 — DATE

/S/ L.C. Harris — ACTING CHIEF DESIG

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FHWA

6

S.D.D. 8 E 4-2

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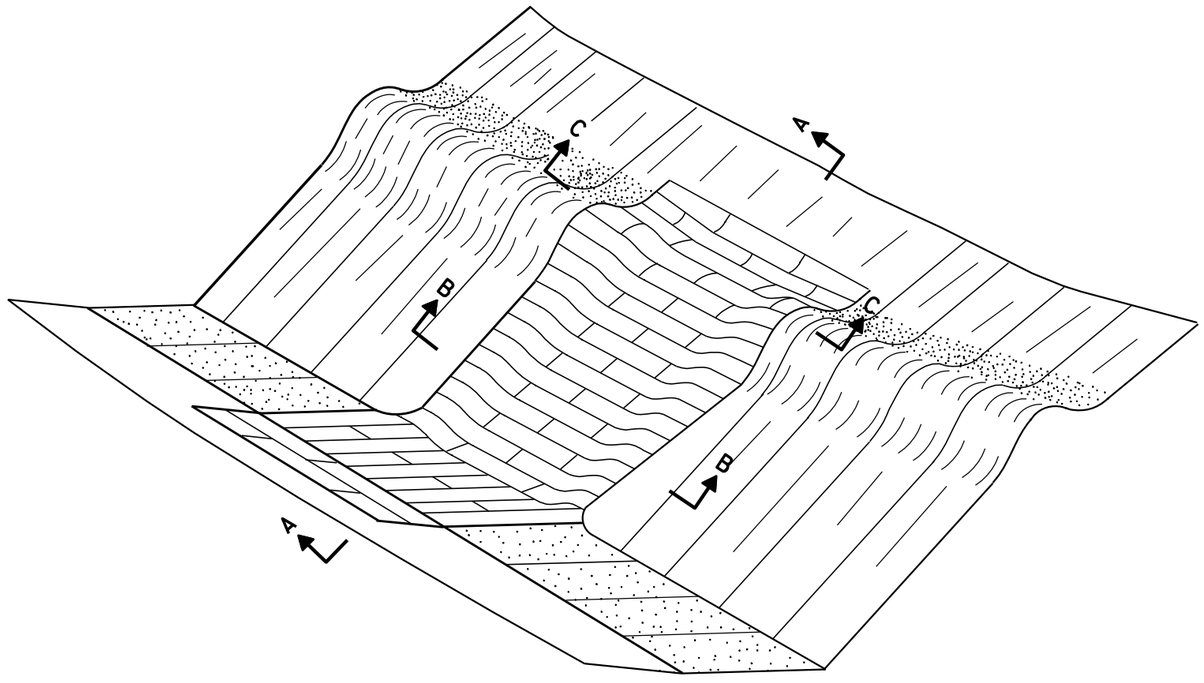
S.D.D. 8 E 4-2



PERSPECTIVE

BACKSLIDE WITH FLUME AND INTERCEPTING EMBANKMENT

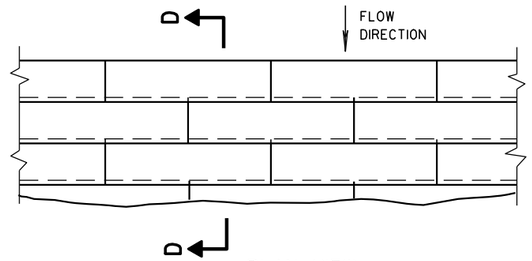
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

GRADING AND SHAPING INTERCEPTING EMBANKMENT WILL BE MEASURED AND PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 205, "ROADWAY AND DRAINAGE EXCAVATION".

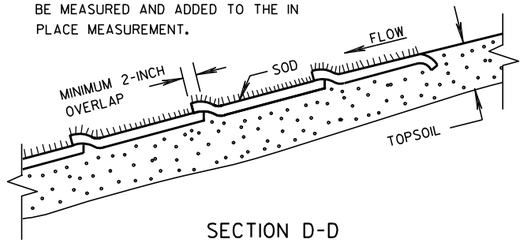
SOD STRIPS SHALL BE LAID TRANSVERSELY TO THE DIRECTION OF THE WATER FLOW.

DIMENSIONS SHALL BE ADJUSTED TO FIT SITE CONDITIONS AS DIRECTED BY THE ENGINEER.



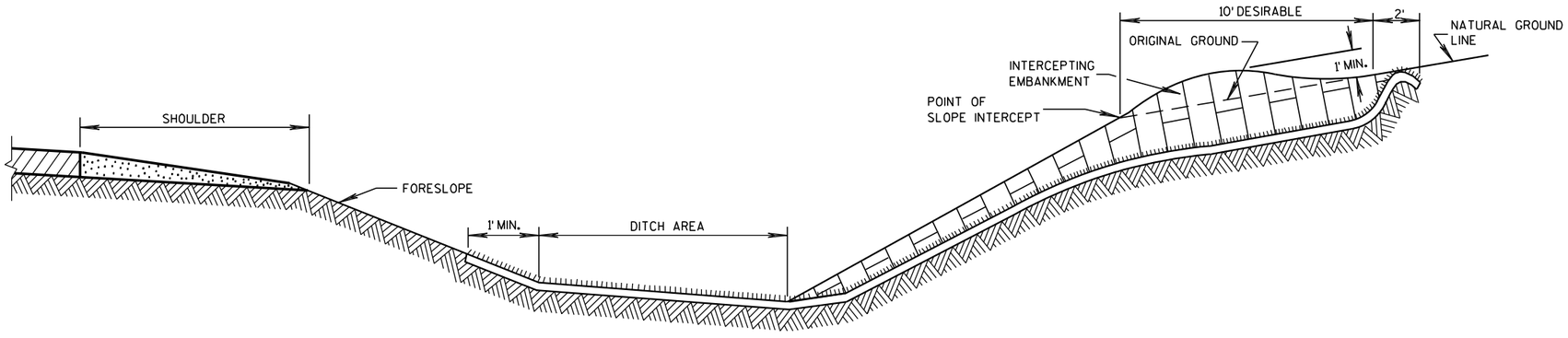
PLAN VIEW

NOTE:
SOD SHALL BE LAID AS SHOWN ON THE PLAN VIEW, AND AS DIRECTED BY THE ENGINEER. THE SOD OVERLAP WILL BE MEASURED AND ADDED TO THE IN PLACE MEASUREMENT.

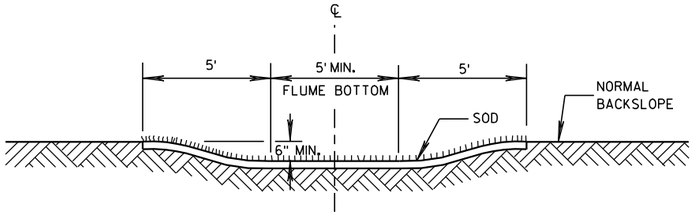


SECTION D-D

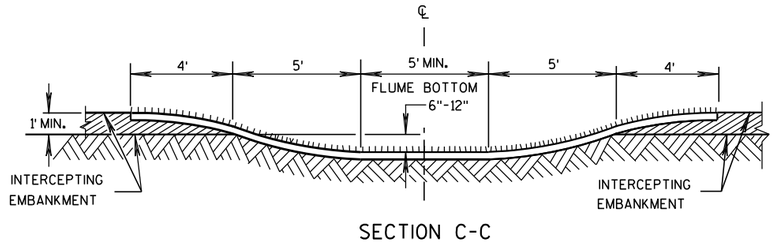
DETAIL FOR OVERLAP OF SOD STRIPS



SECTION A-A



SECTION B-B



SECTION C-C

SODDED BACKSLOPE FLUME AND INTERCEPTING EMBANKMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/24/95 DATE
/S/ Rory L. Rhi... CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 5-2

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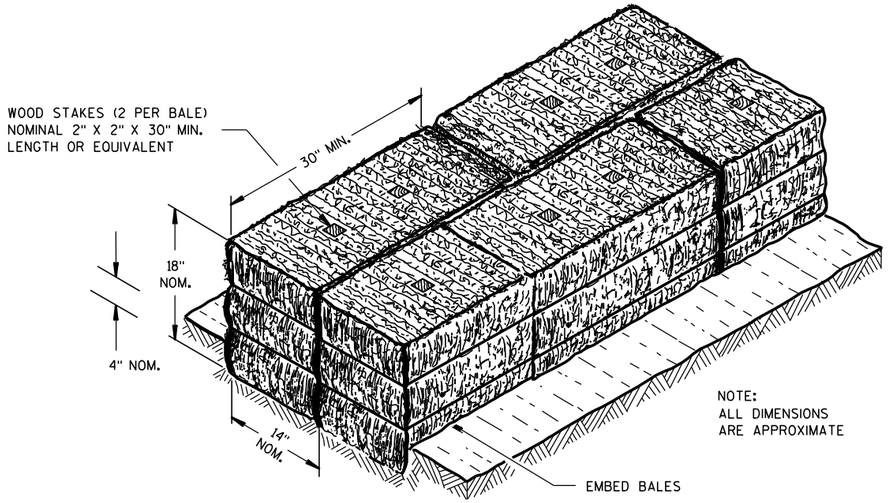
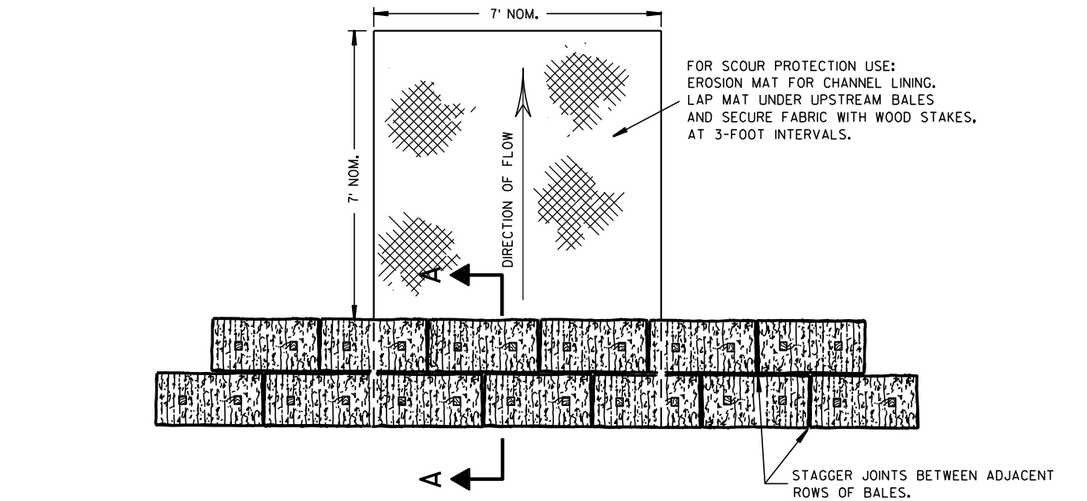
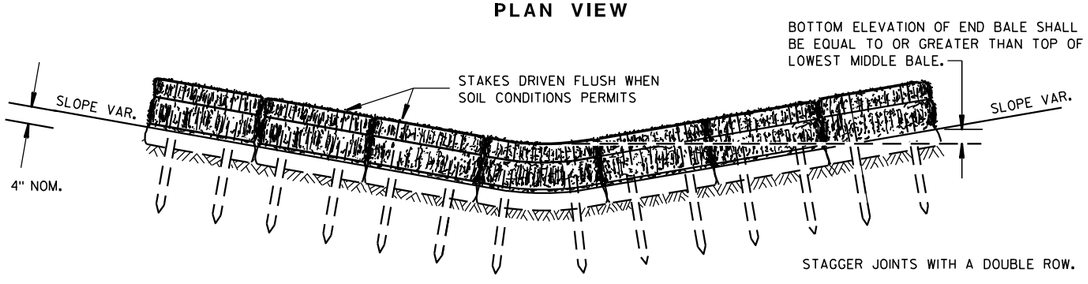
S.D.D. 8 E 5-2



SECTION A-A



PLAN VIEW



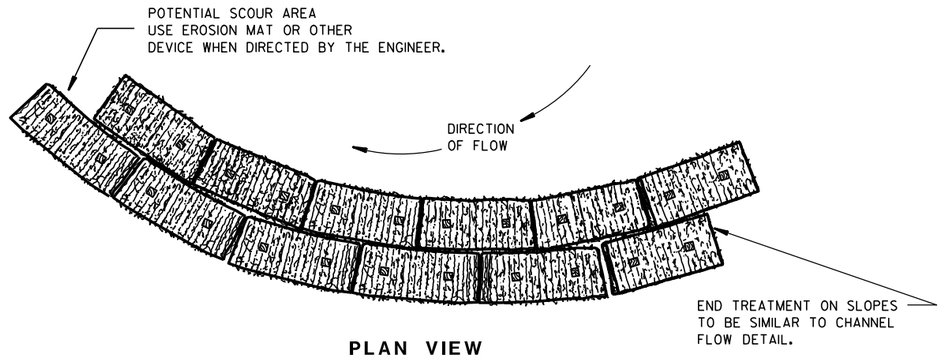
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

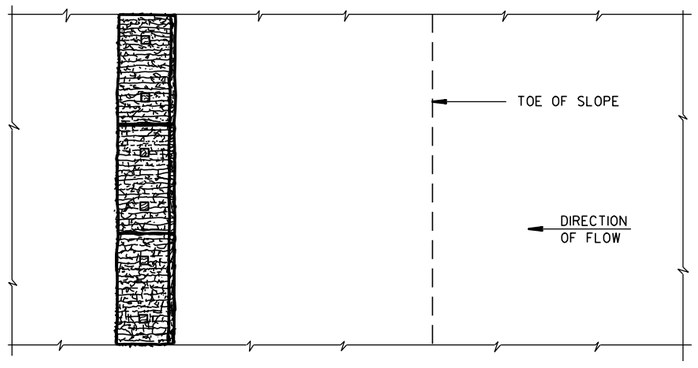
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

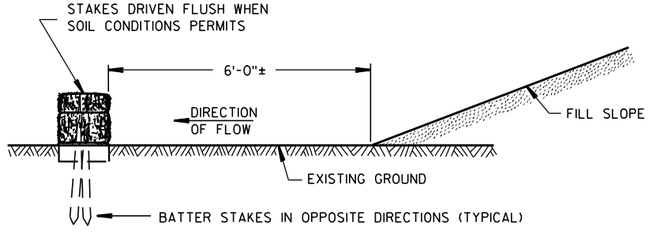


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

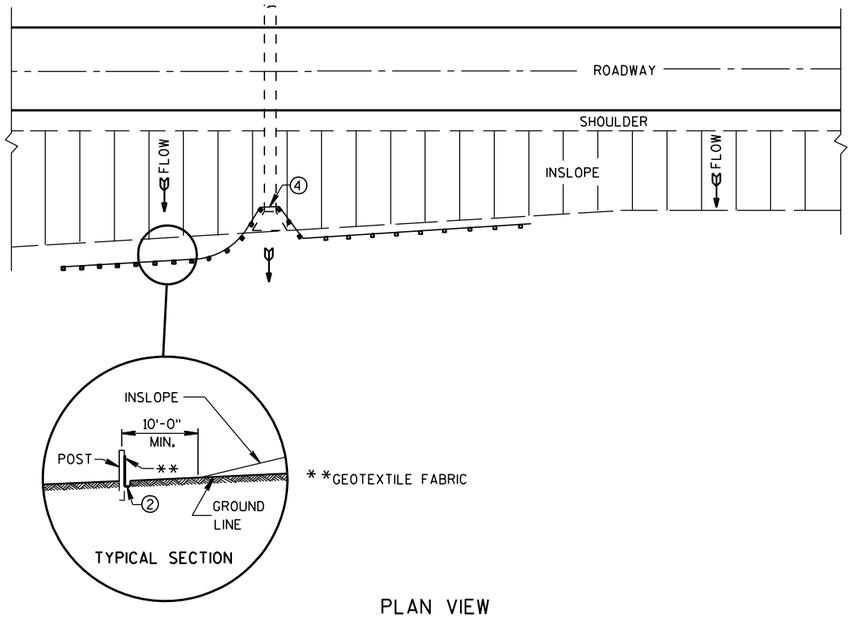
APPROVED

6/04/02 DATE — /S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

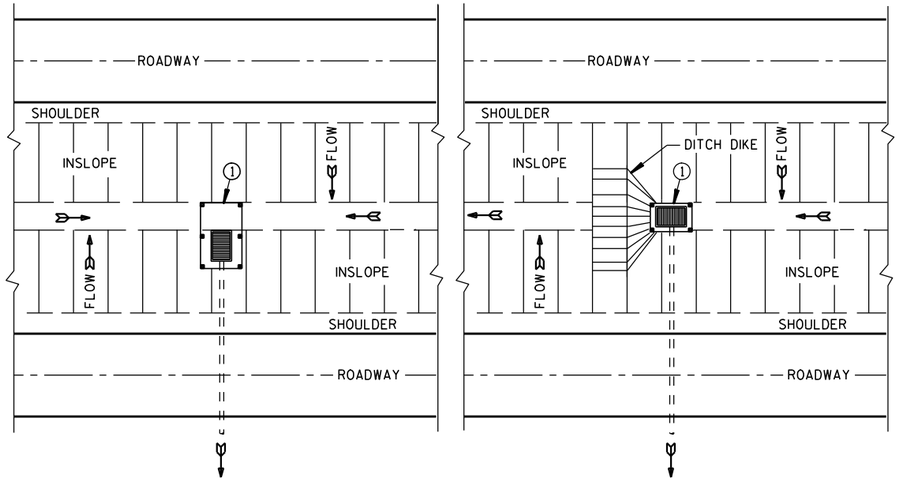
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



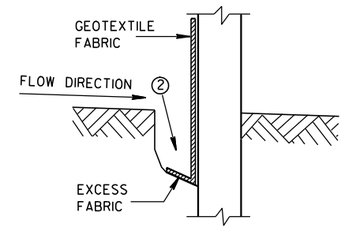
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

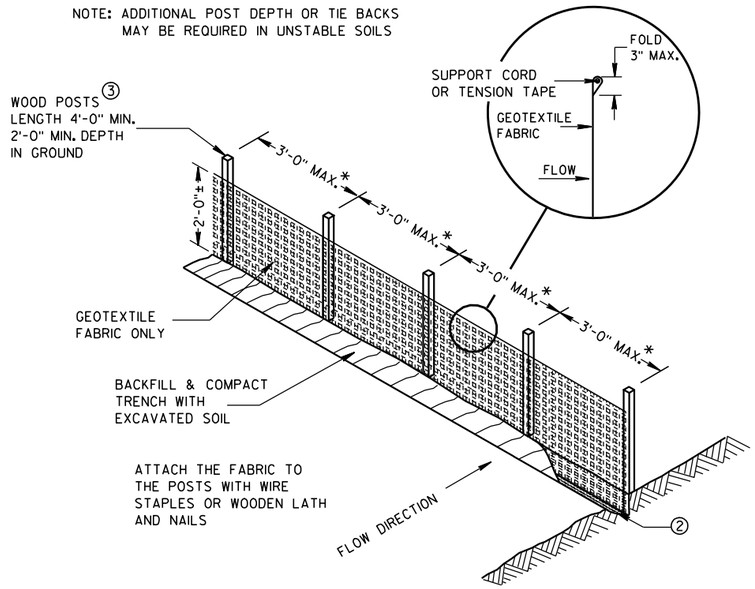
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

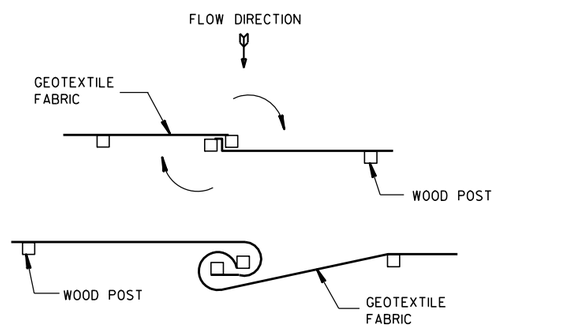


TRENCH DETAIL

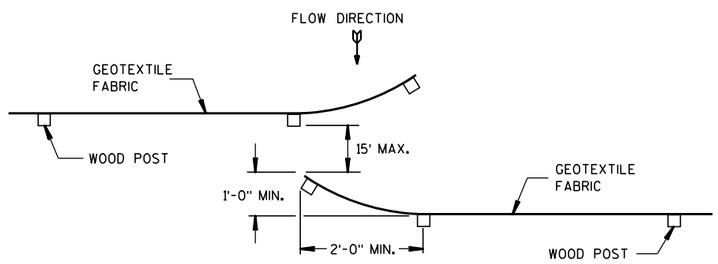


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

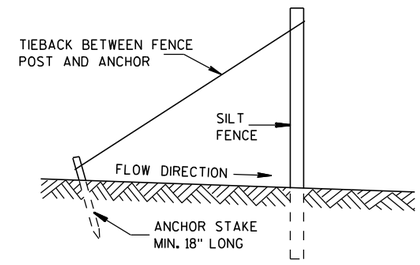


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

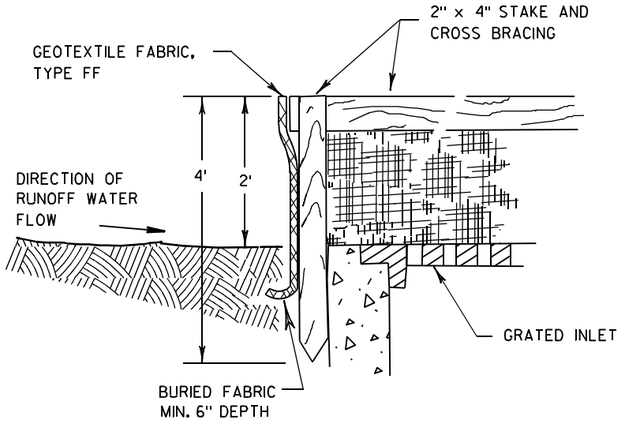
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

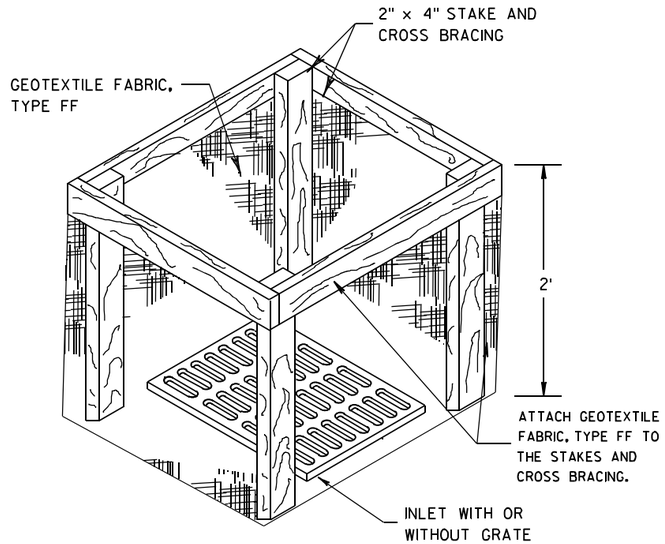
6

S.D.D. 8 E 9-6

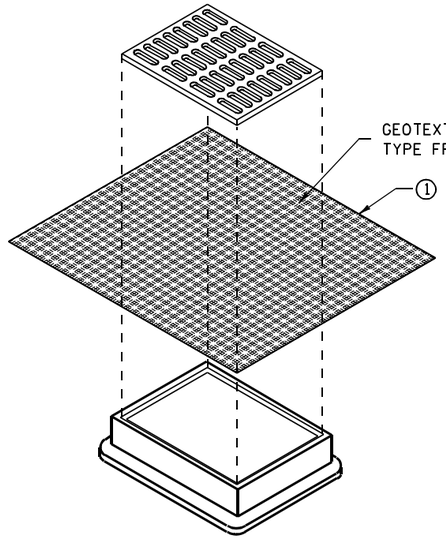
6

S.D.D. 8 E 9-6



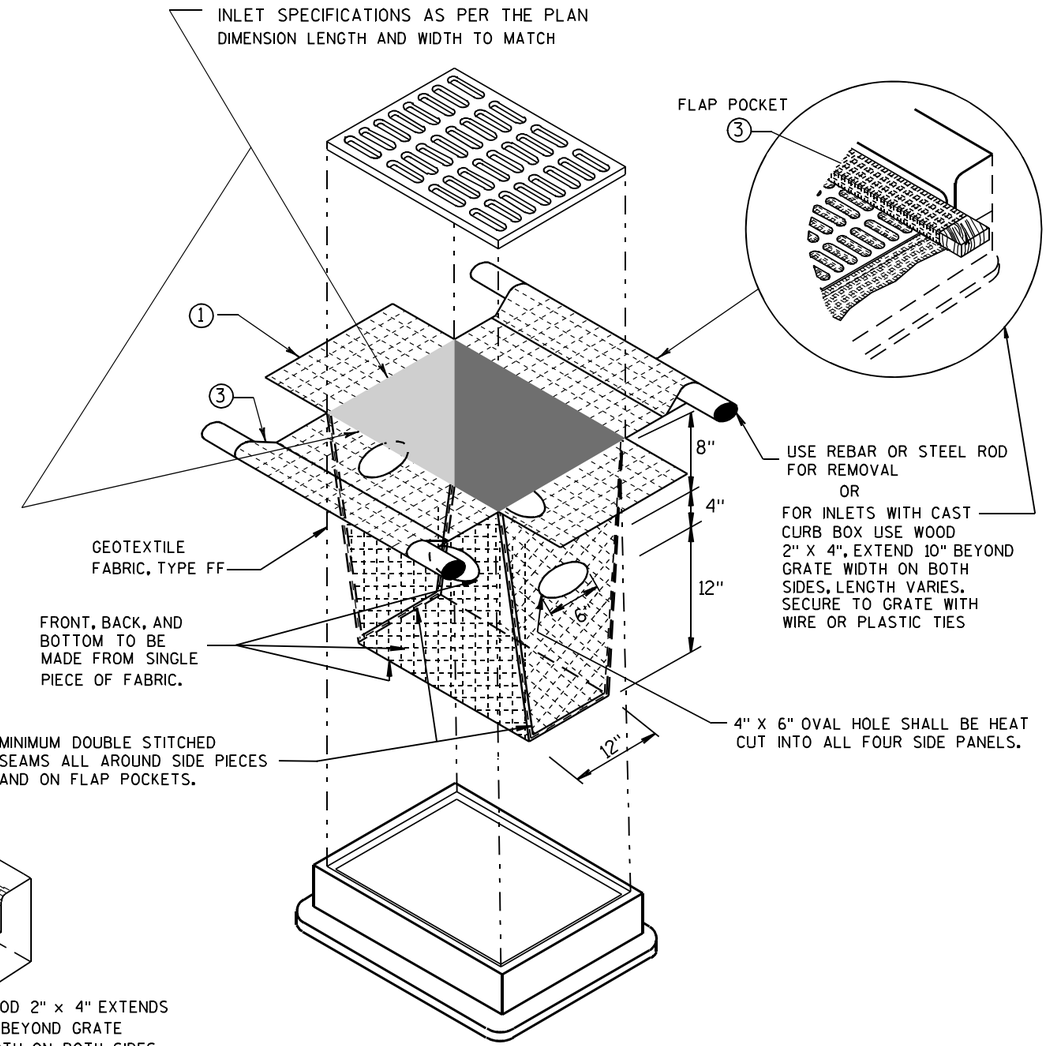


INLET PROTECTION, TYPE A



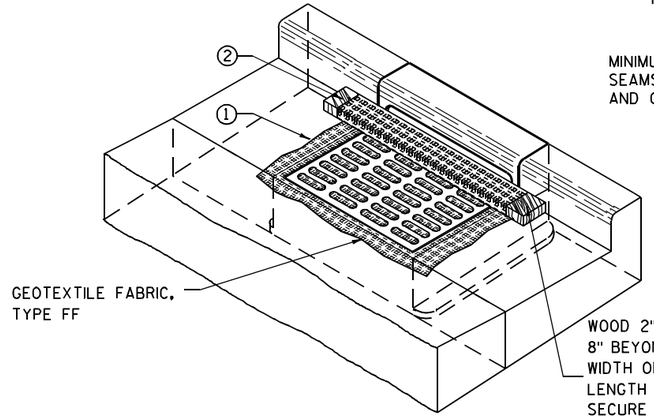
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

METAL APRON ENDWALLS

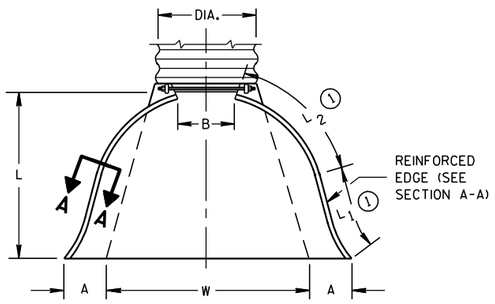
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

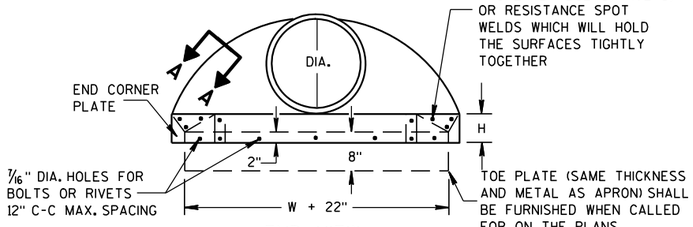
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

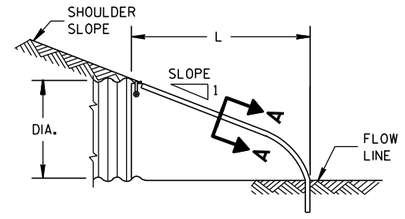
*MINIMUM
**MAXIMUM



PLAN VIEW

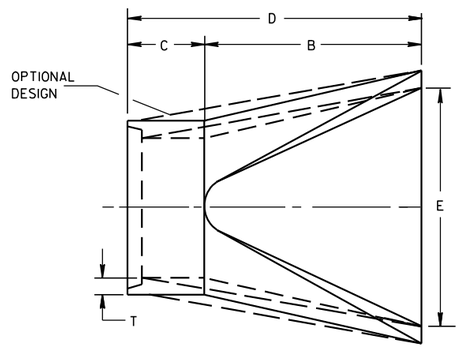


END VIEW

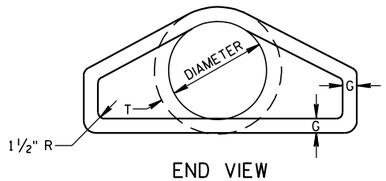


SIDE ELEVATION

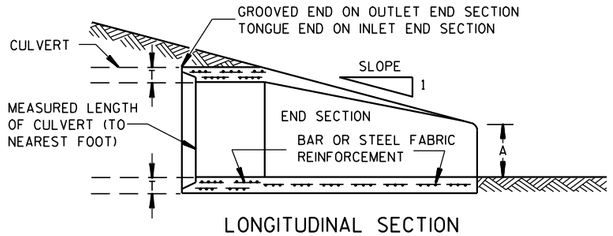
METAL ENDWALLS



PLAN

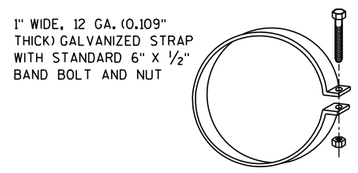


END VIEW



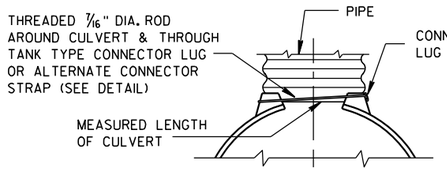
LONGITUDINAL SECTION

CONCRETE ENDWALLS

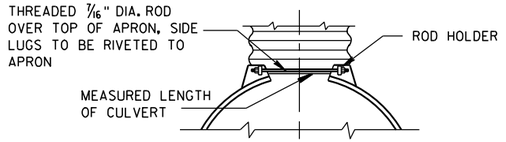


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

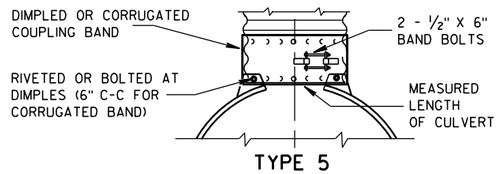


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

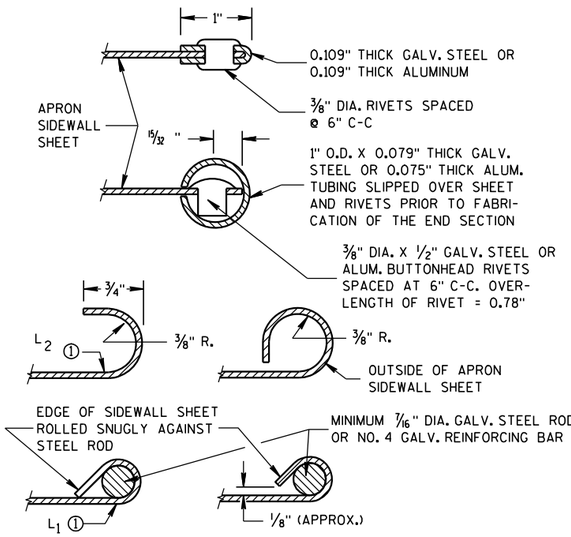
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

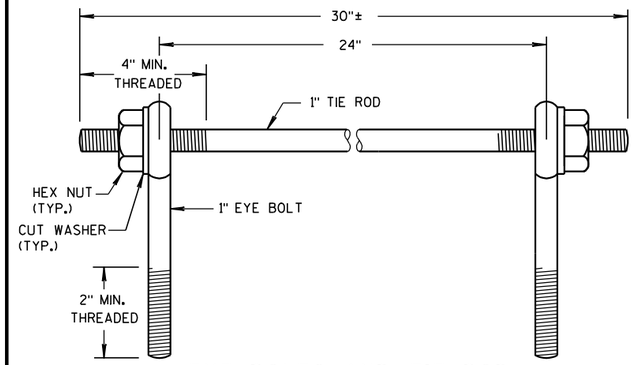
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

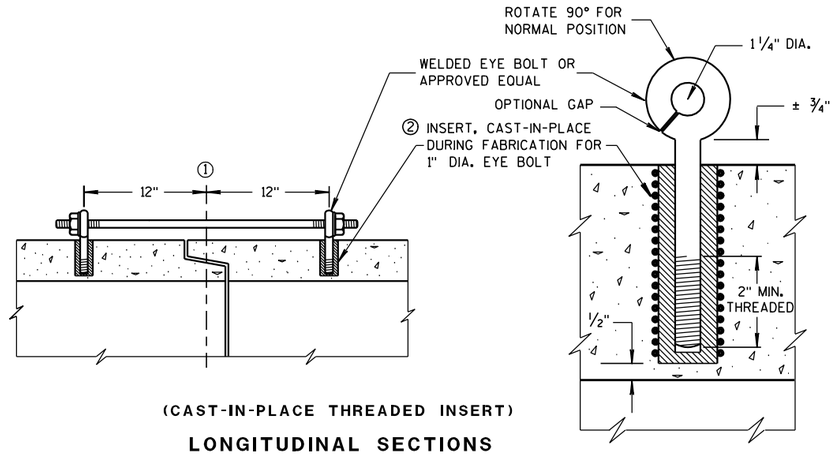
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

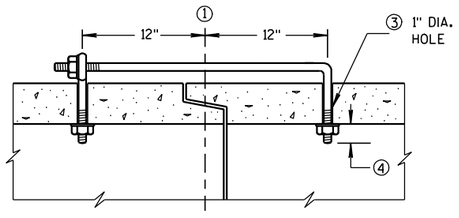
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

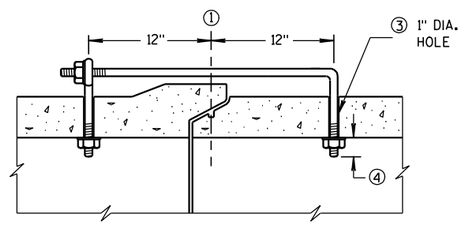
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

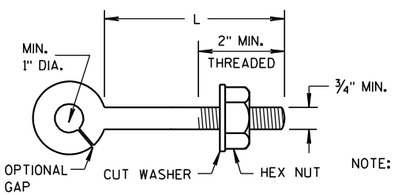


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

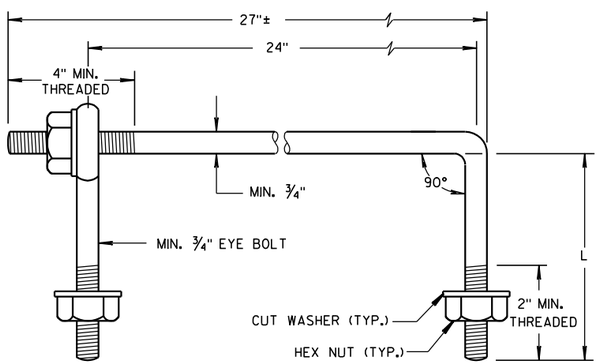
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

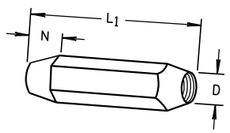
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



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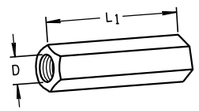
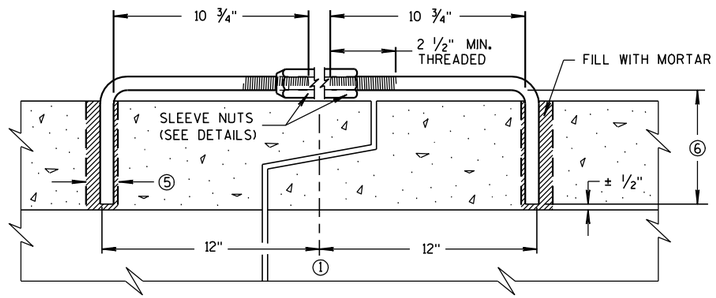


PLAIN

RIGHT AND LEFT THREADS

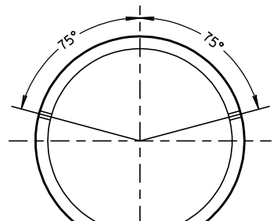
SLEEVE NUTS



LONGITUDINAL SECTION

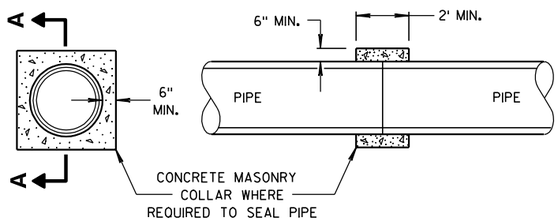
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

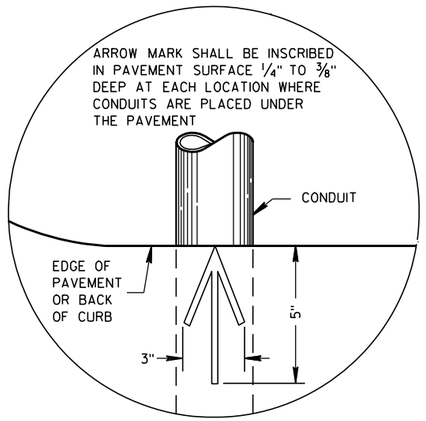
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
257
FHWA

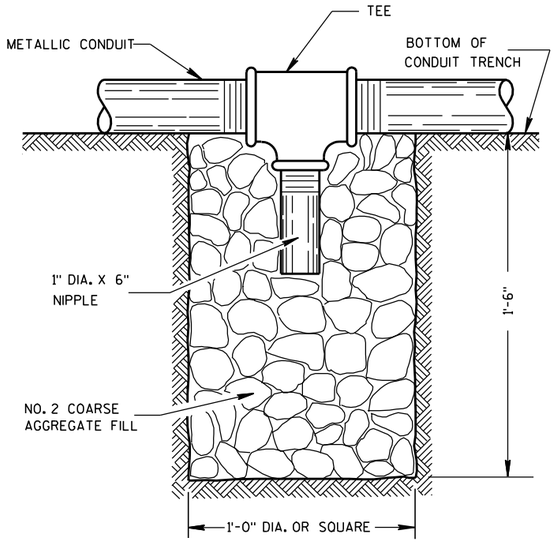
6

S.D.D. 8 F 4-7



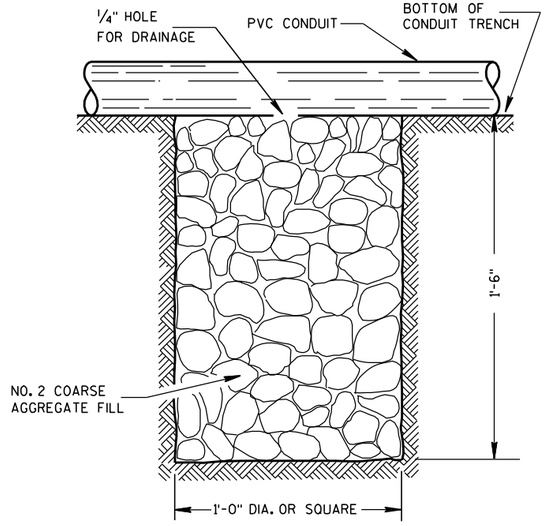
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

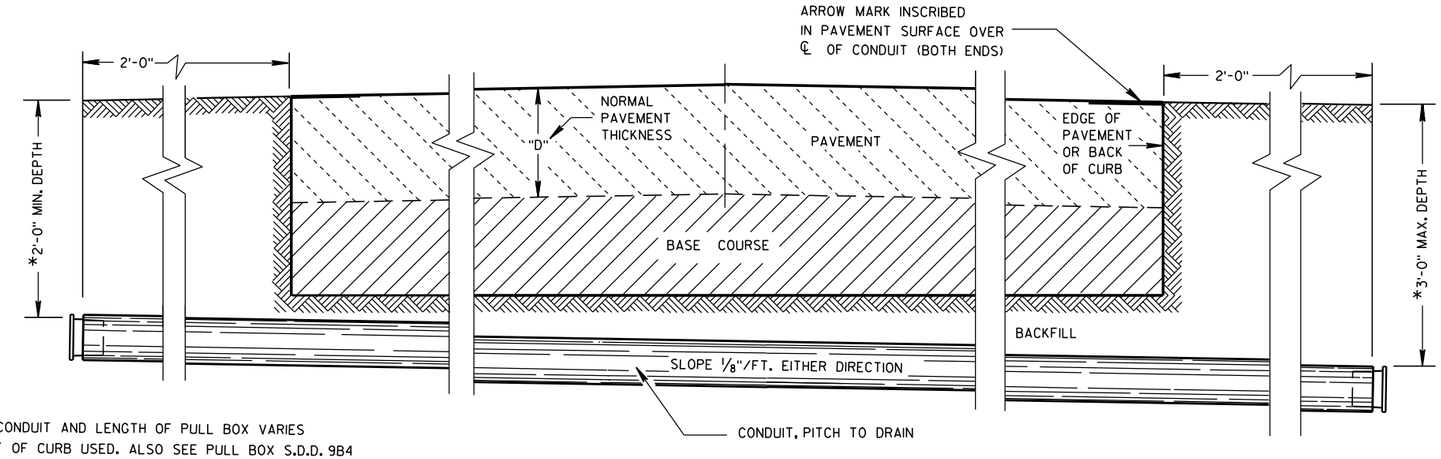
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

258 — HWYS

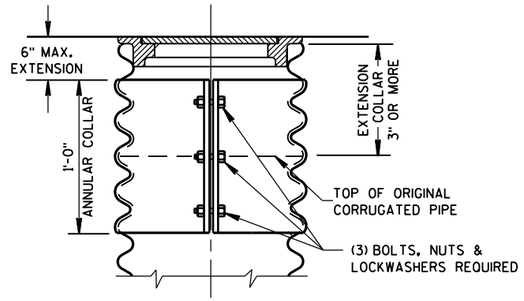
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

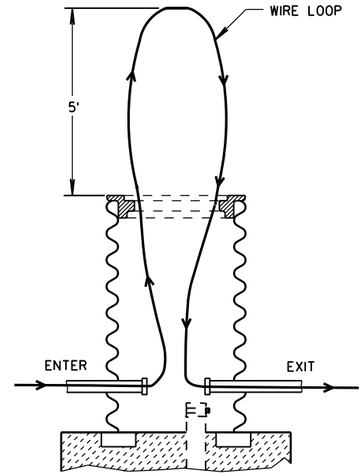
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

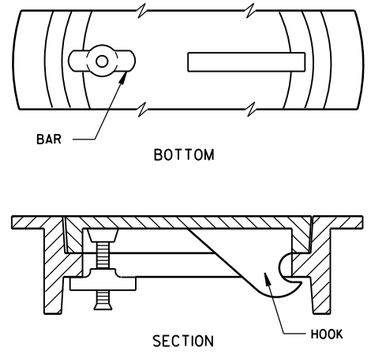
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

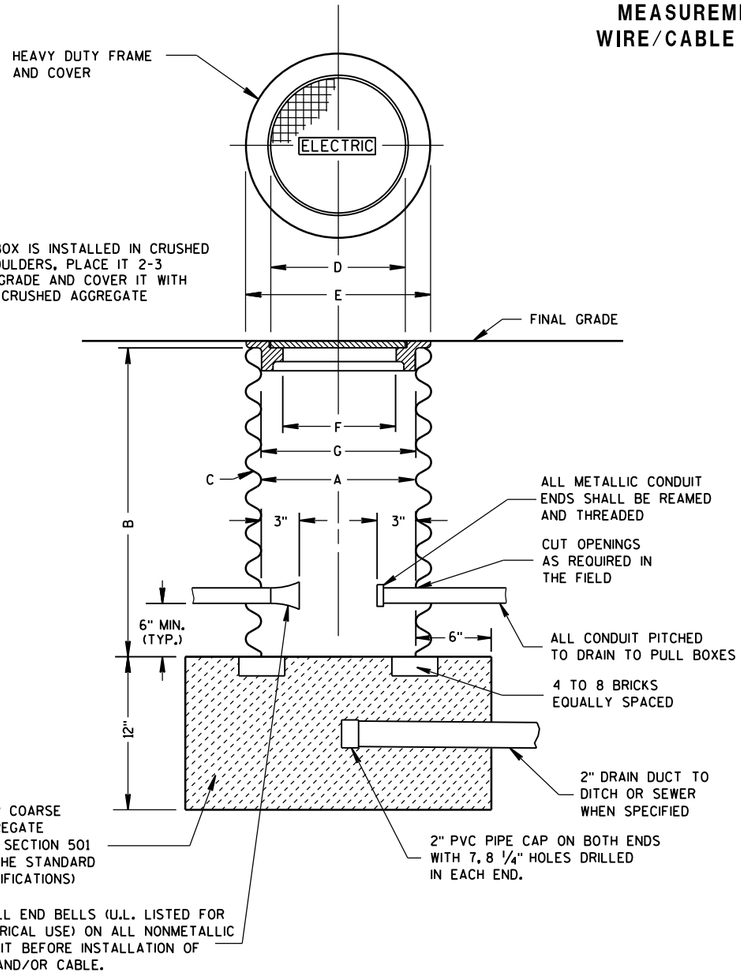


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



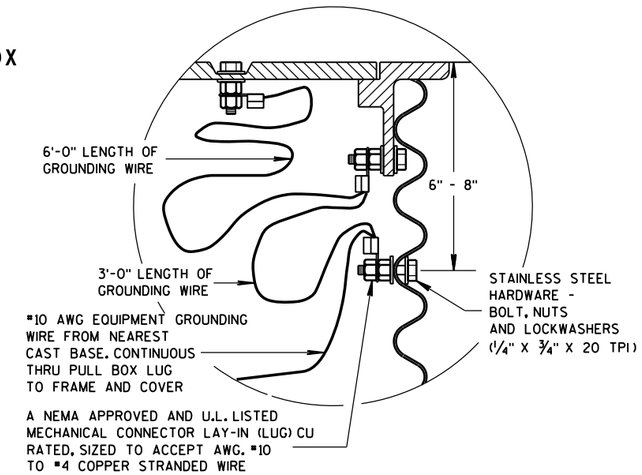
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

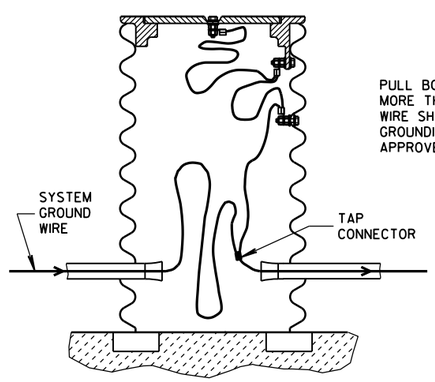
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-7-2013 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

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S.D.D. 9 B 4-10

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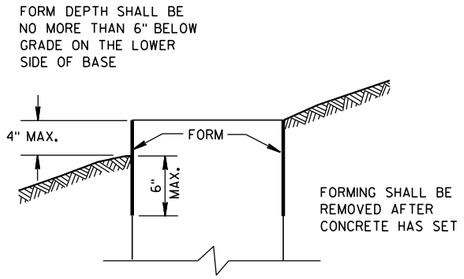
S.D.D. 9 B 4-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

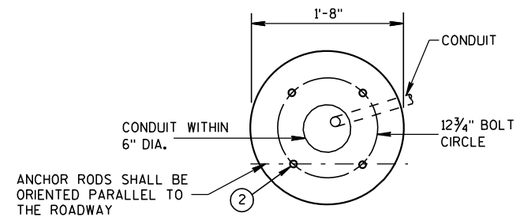
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

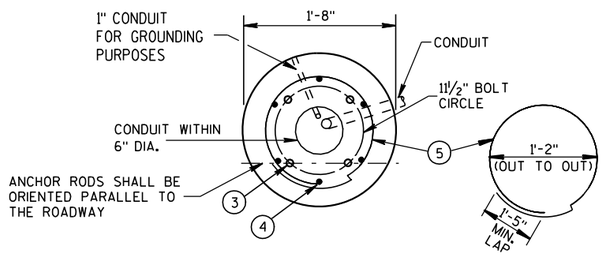
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

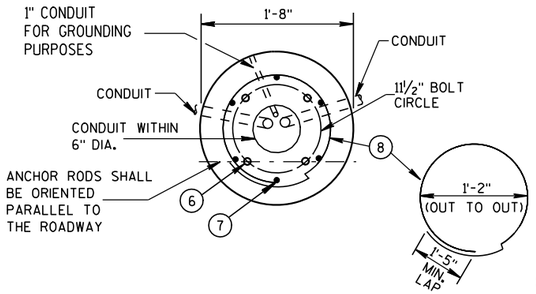
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

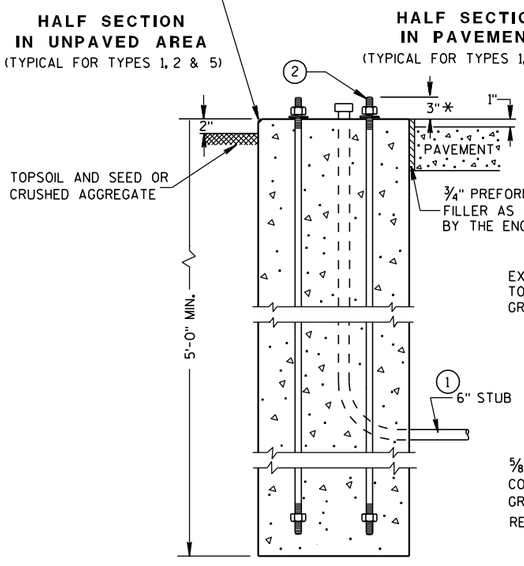






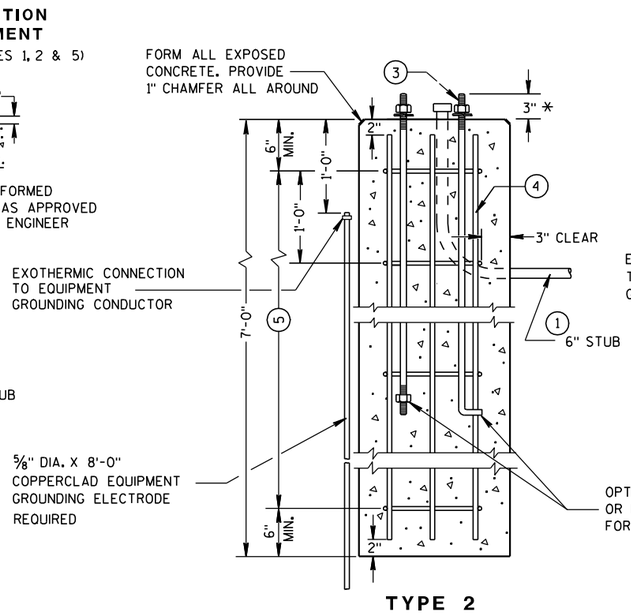
FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)

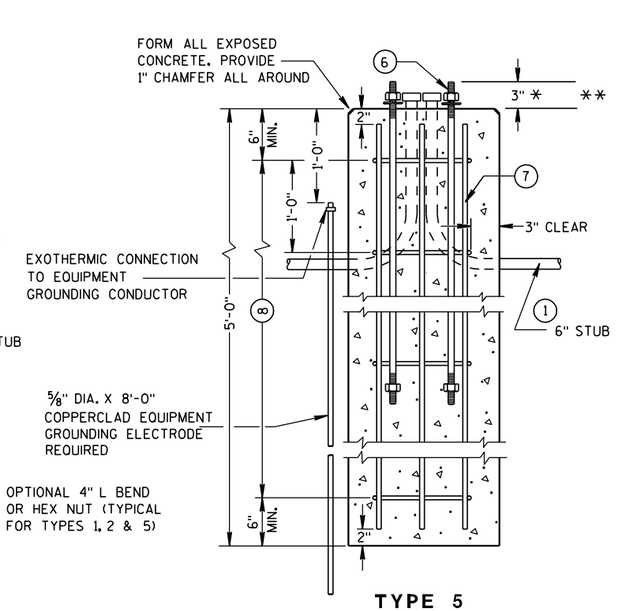


HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI 260 — HWYS
FHWA

6
S.D.D. 9 C 2-6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

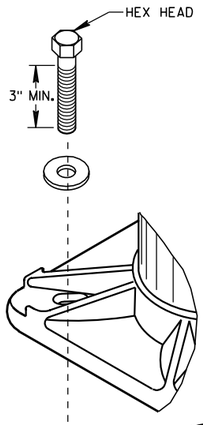
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

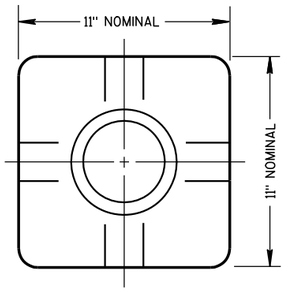
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

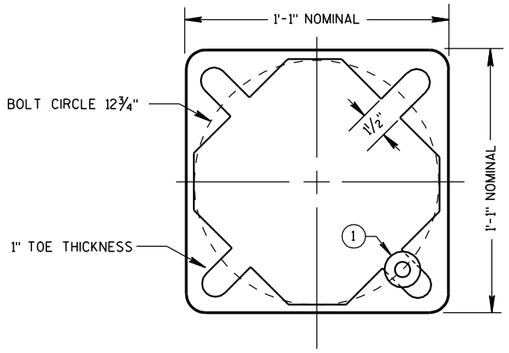
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

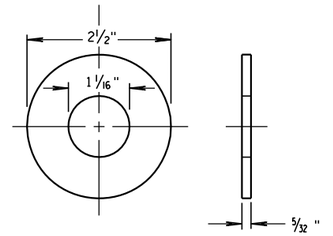




TOP VIEW
(PEDESTAL BASE)

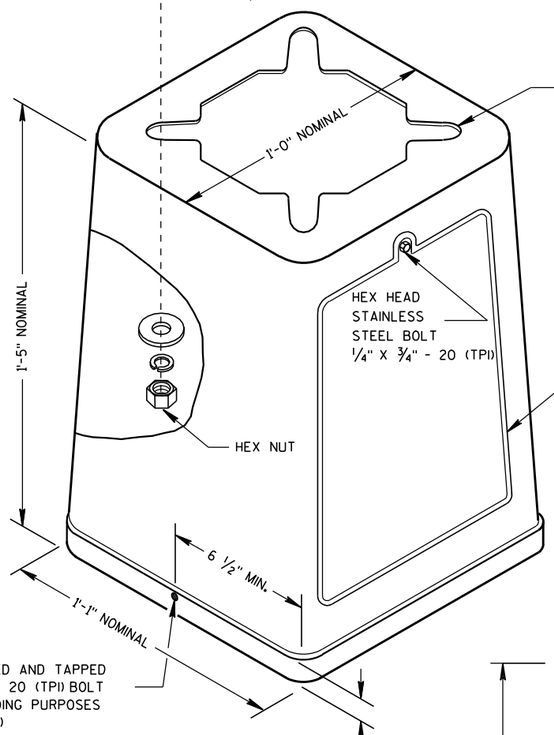


BOTTOM VIEW
(PEDESTAL BASE)

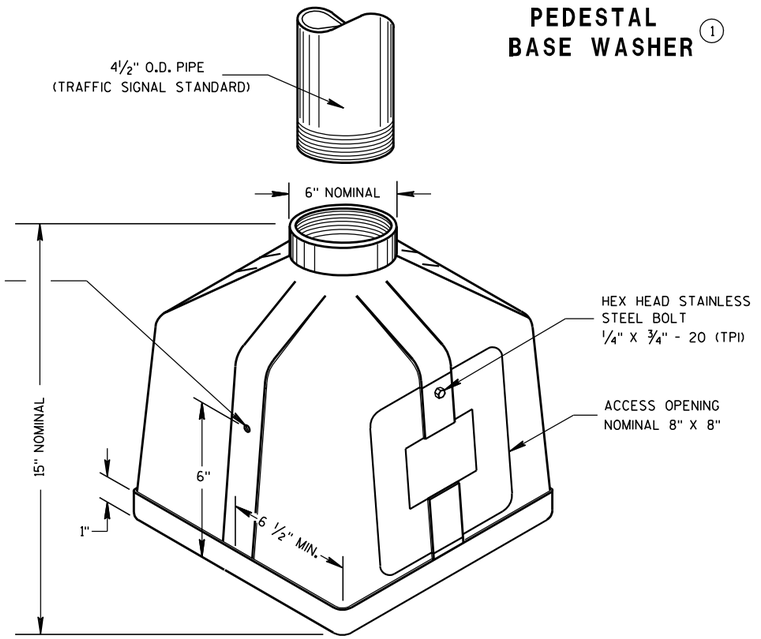


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

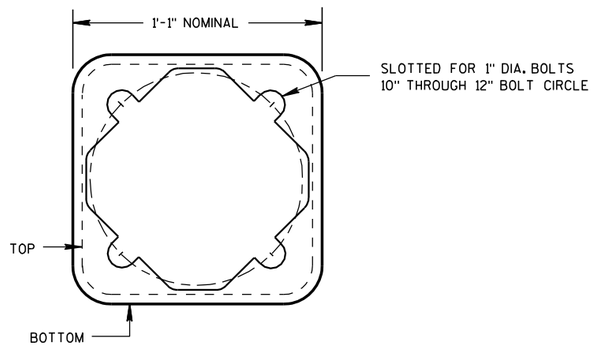


ISOMETRIC VIEW

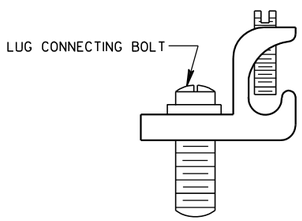


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

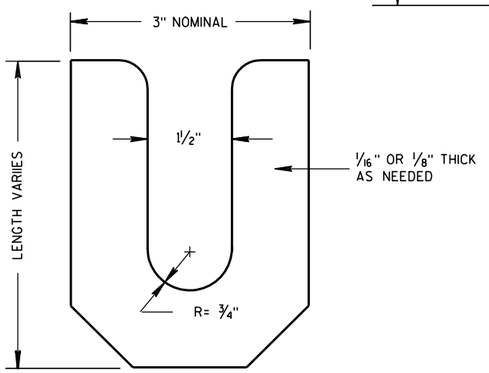


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 — DATE
/S/ Joanna L. Rich — STATE ELECTRICAL ENGI
261 — HWYS
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S.D.D. 9 C 3-3

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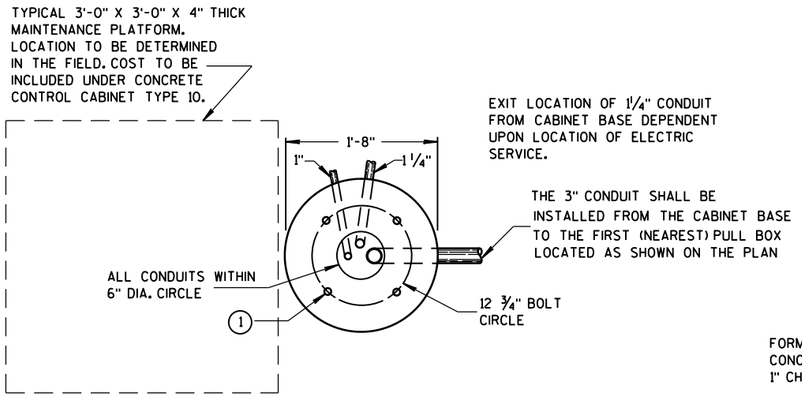
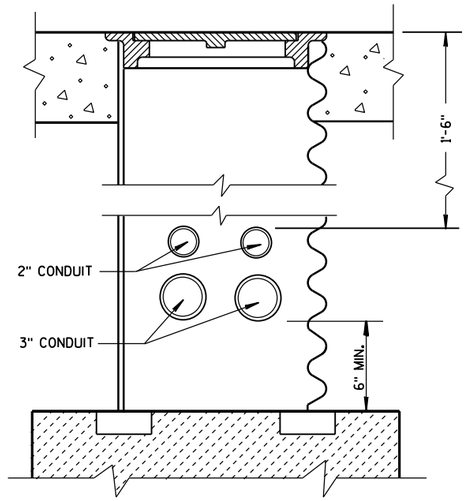
S.D.D. 9 C 3-3

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

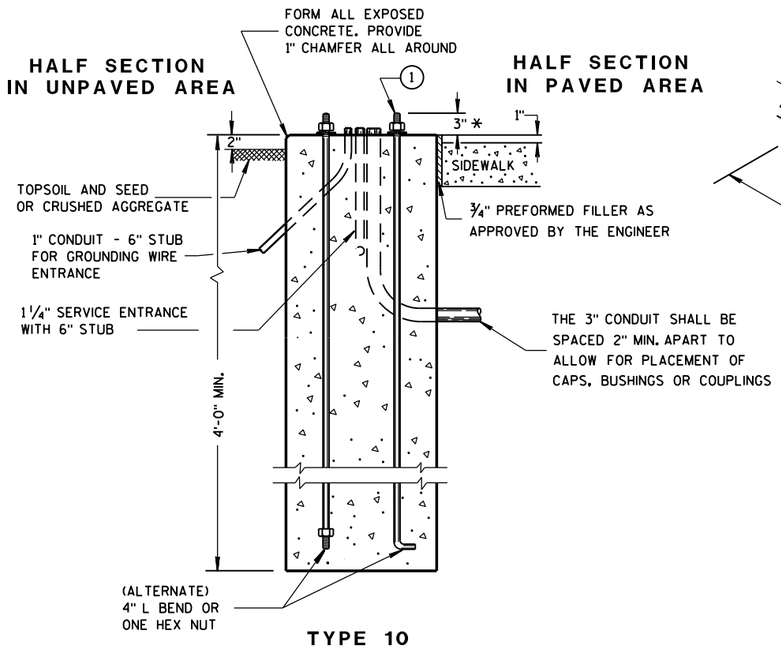
* INCLUDES MAINTENANCE PLATFORM.



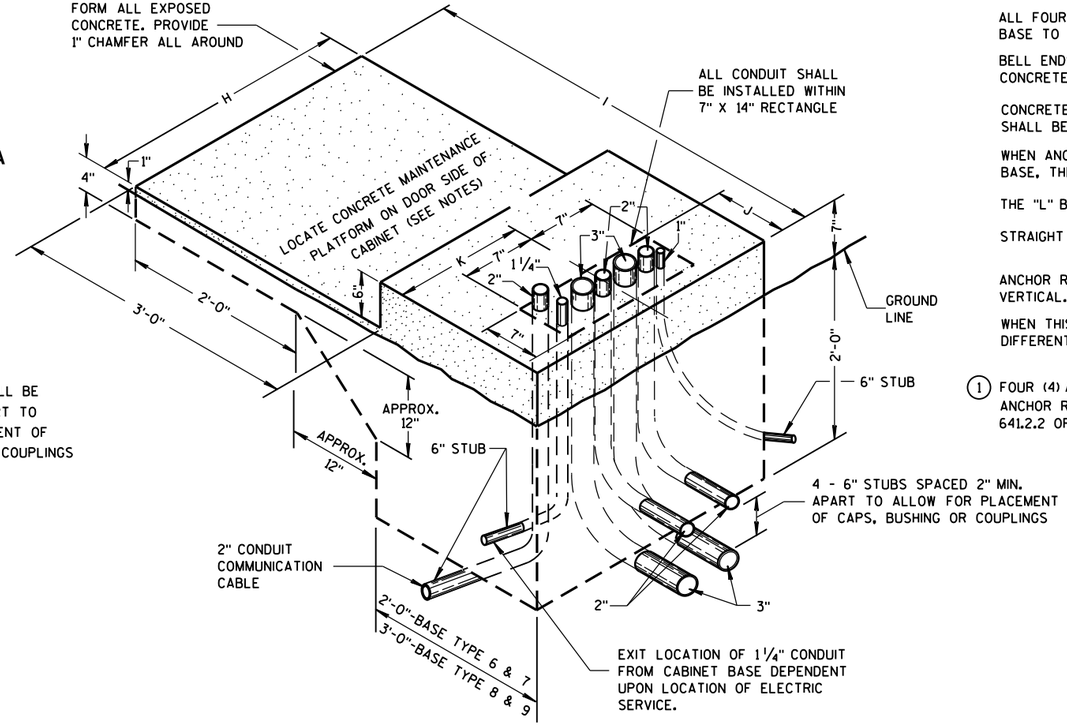


CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10



TYPE 6,7,8 AND 9
(ISOMETRIC VIEW)

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WHEN THIS DRAWING IS USED FOR STREET LIGHTING CABINET BASES, CONDUIT MAY BE DIFFERENT AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6"
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/26/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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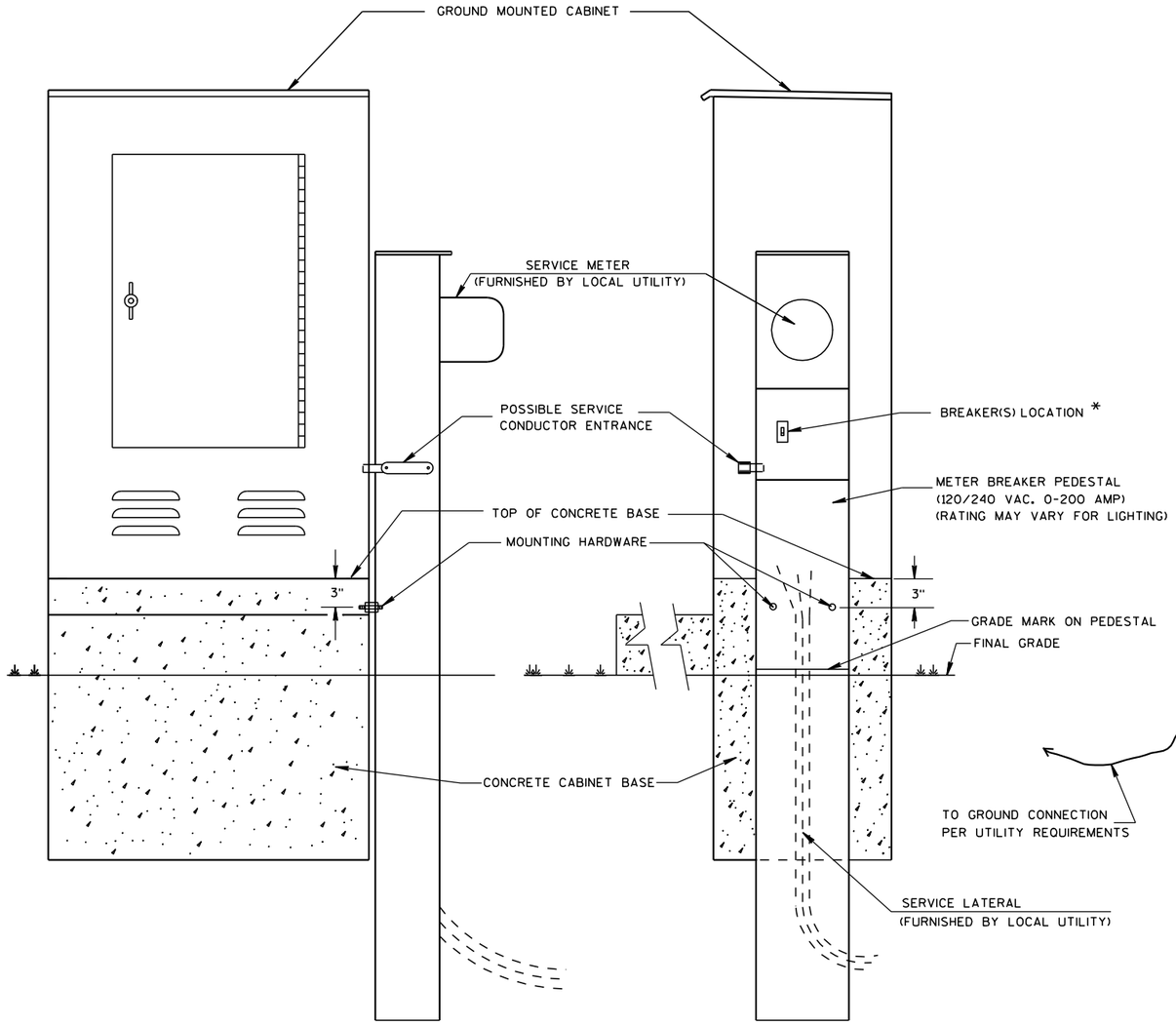

TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 DATE
/S/ Joanna L. Bush STATE ELECTRICAL ENGI
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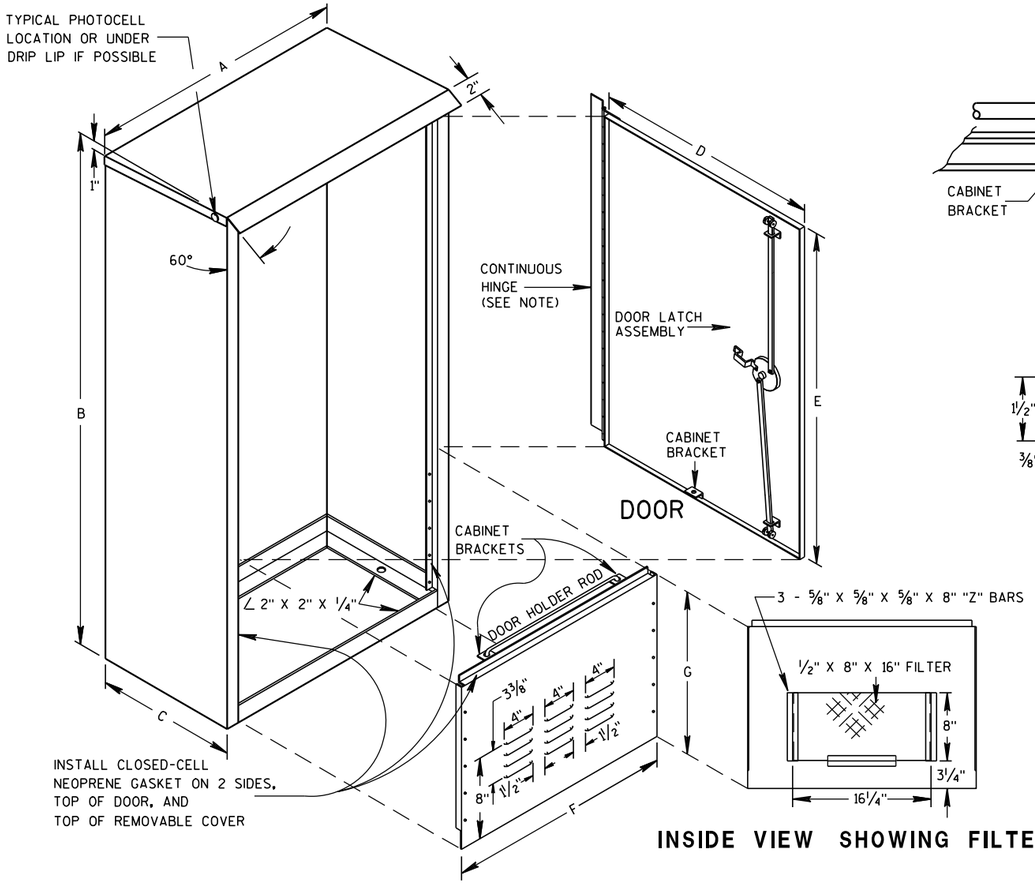
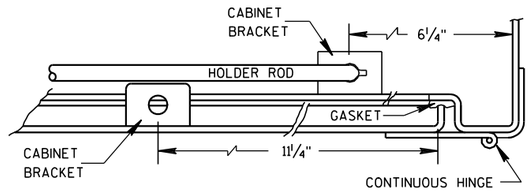
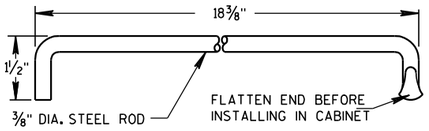


REMOVABLE COVER

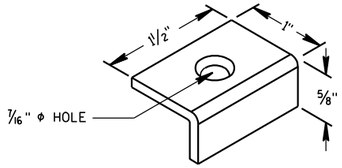
INSIDE VIEW SHOWING FILTER



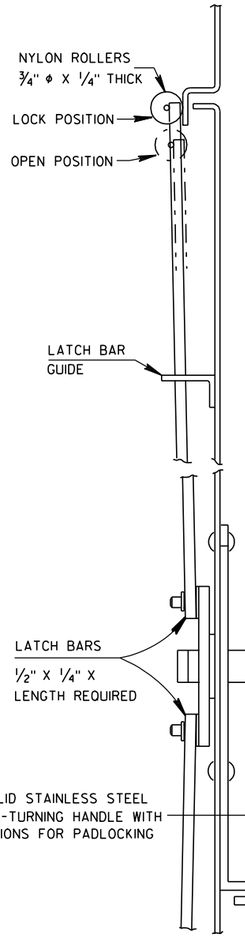
HINGE & DOOR HOLDER



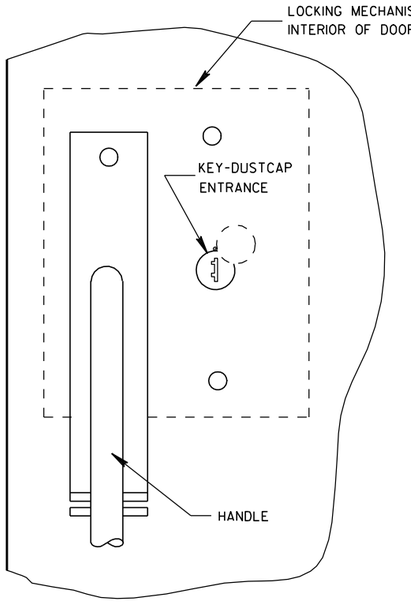
HOLDER ROD



CABINET BRACKET

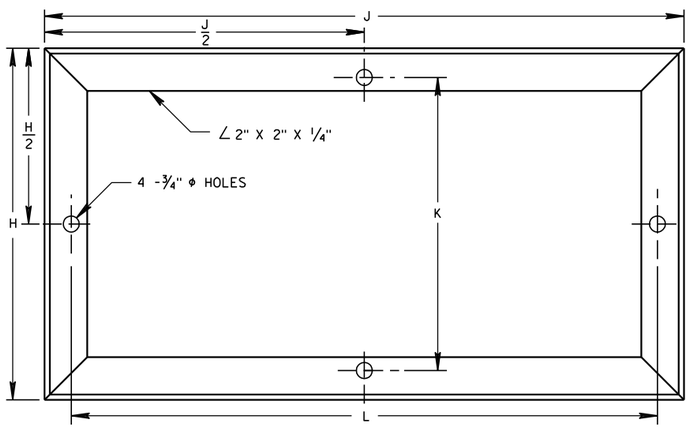


SIDE VIEW



FRONT VIEW

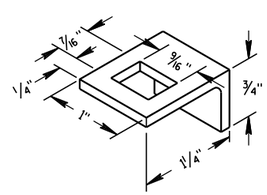
LATCH ASSEMBLY



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



LATCH BAR GUIDE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

SIGNAL OR LIGHTING CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/21/96 — DATE
/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI
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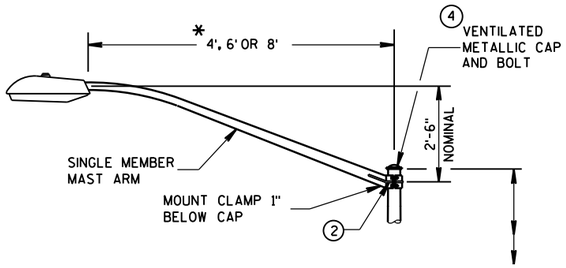
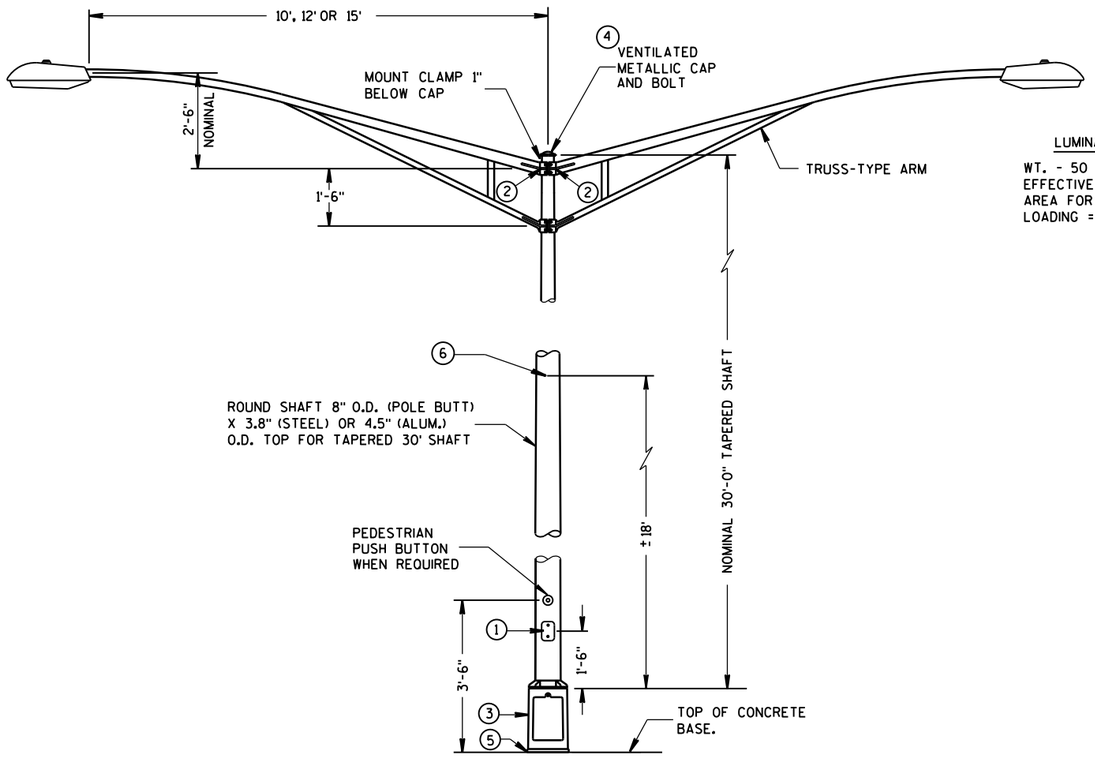
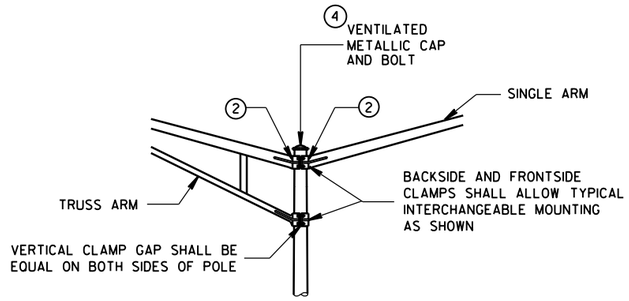
*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

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POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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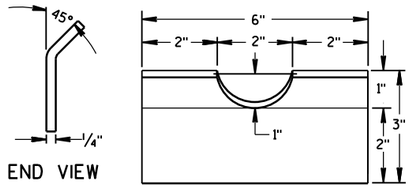
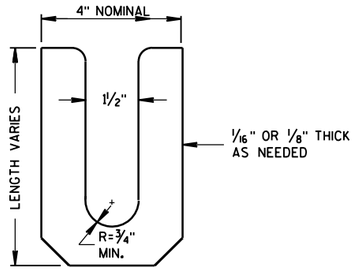


END VIEW

FRONT VIEW

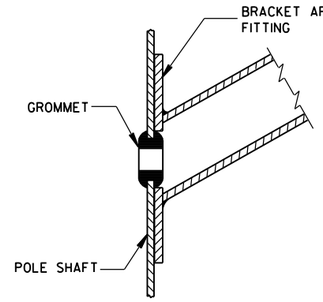
RECTANGULAR CLAMP SHIM

(4 TO A SET)

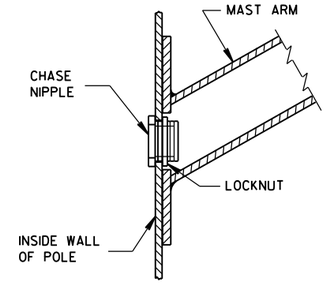


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

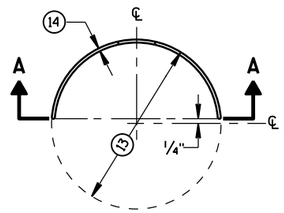
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

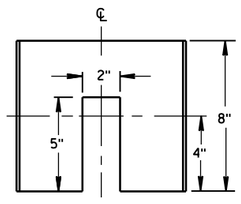
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



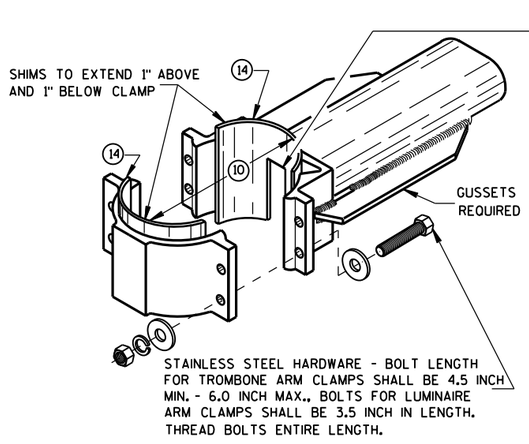
PLAN VIEW



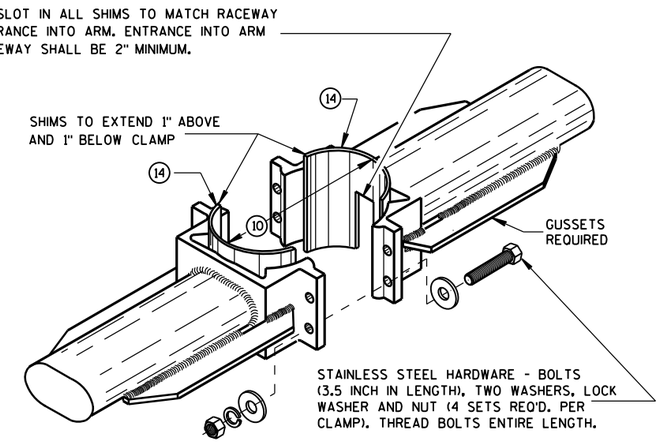
SECTION A-A

CIRCULAR CLAMP SHIM

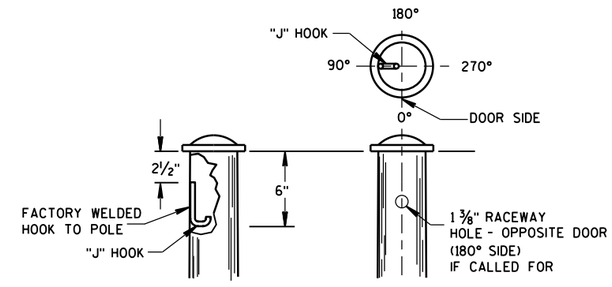
(2 TO A SET)



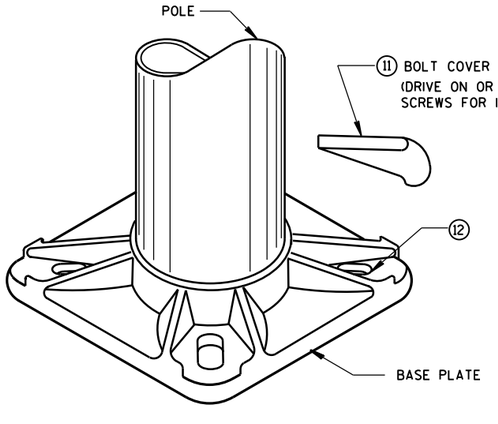
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



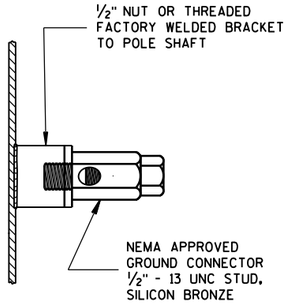
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

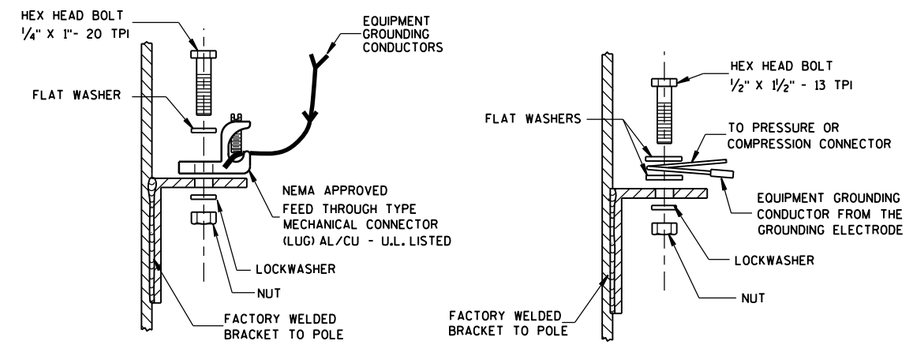


TYPICAL "J" HOOK LOCATION



BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/7/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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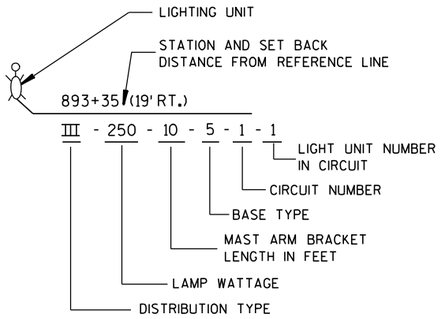
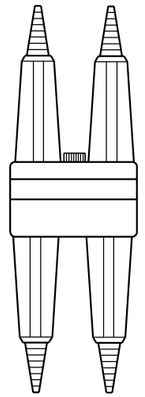
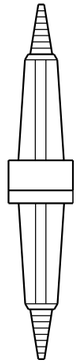


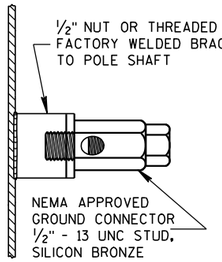
LIGHTING UNIT CODE
(TYPICAL)

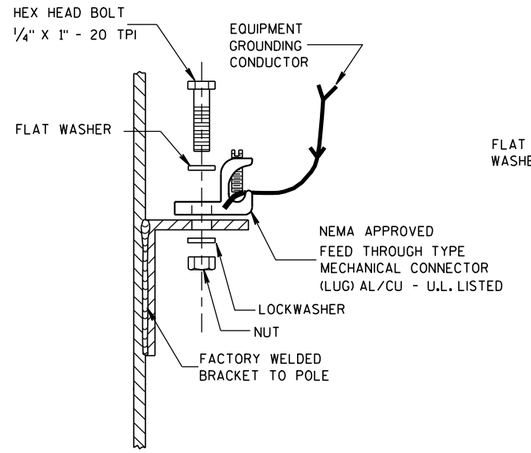


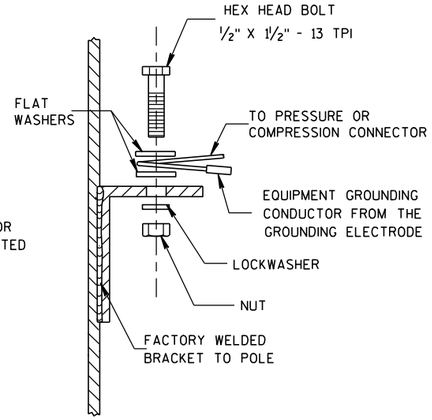
DETAIL "A"
BREAKAWAY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



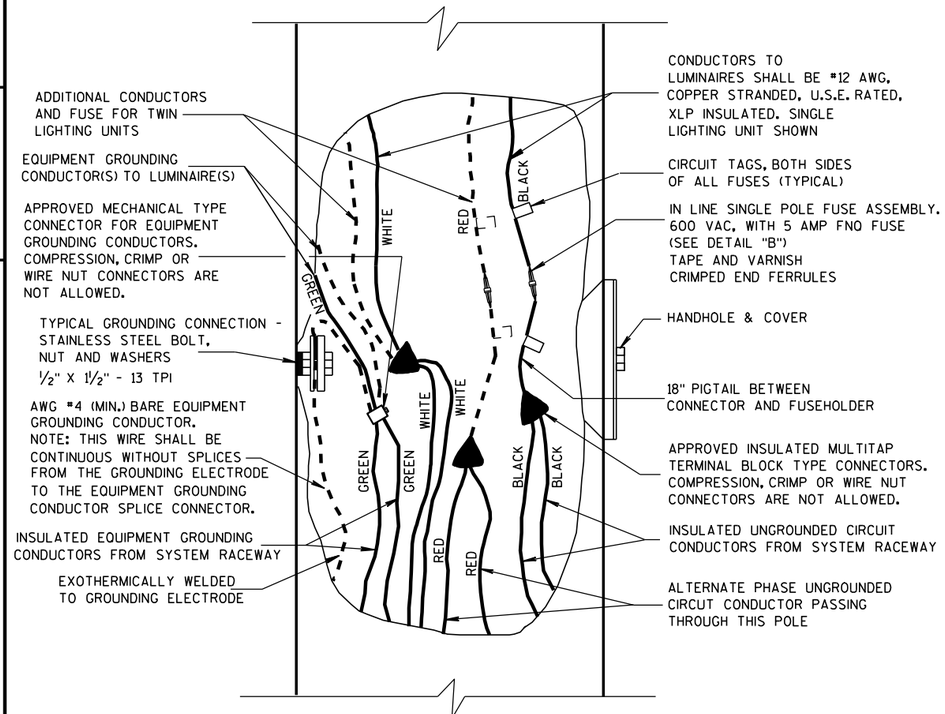
DETAIL "B"
BREAKAWAY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



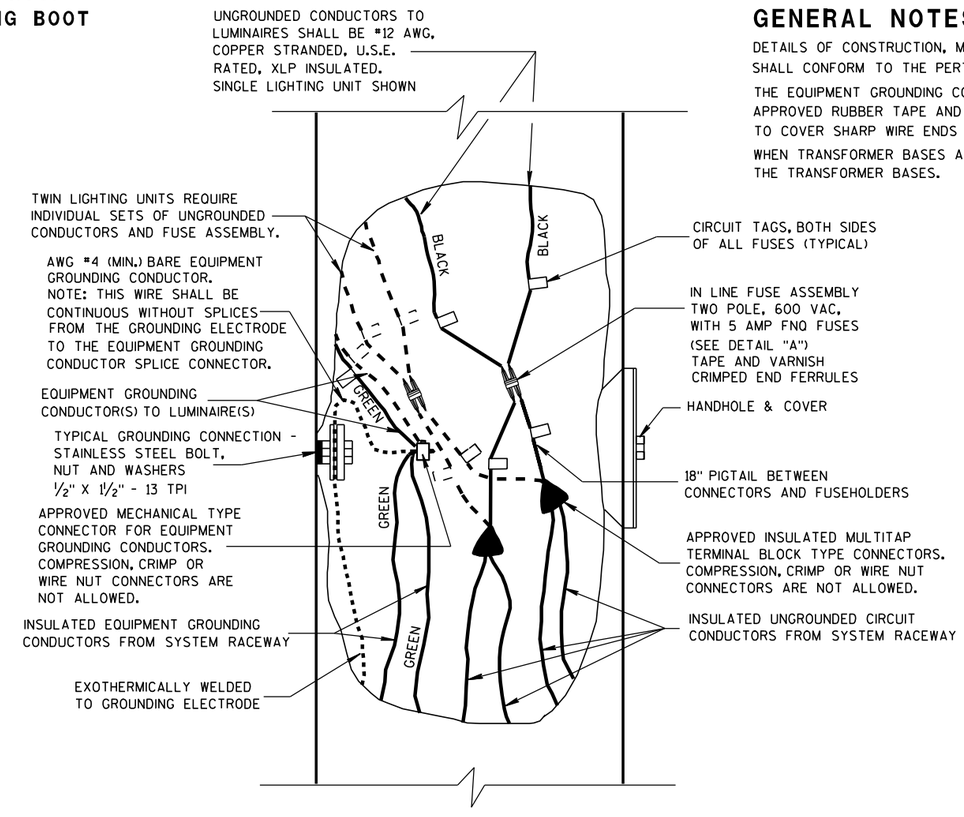




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

/S/ Thomas J. Gosnine — STATE ELECTRICAL ENGI

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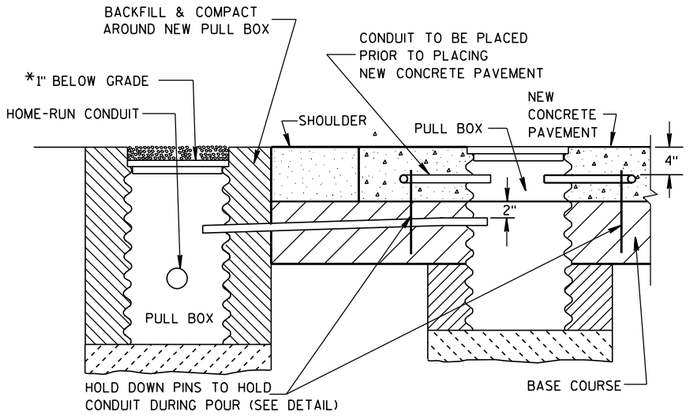


SECTION A-A
NO CURB & GUTTER
LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

ANY PVC LEADOUT CONDUIT CONTAINING MORE THAN ONE TWISTED PAIR OF LOOP LEAD WIRE SHALL BE 2".

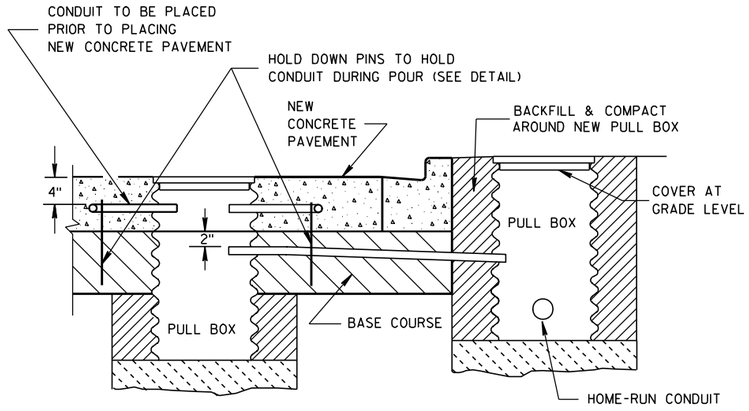
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

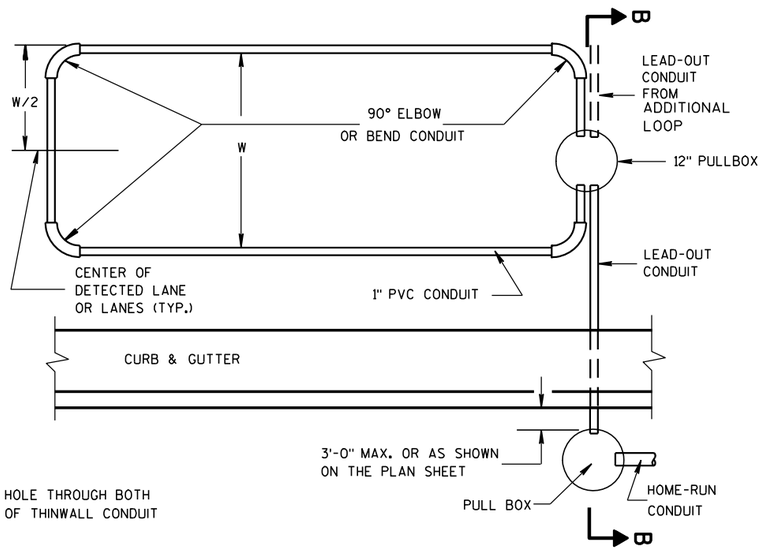
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, INTO THE PULL BOX IN THE PAVEMENT, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE PULL BOX IN THE BASE COURSE, AND THE RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED.

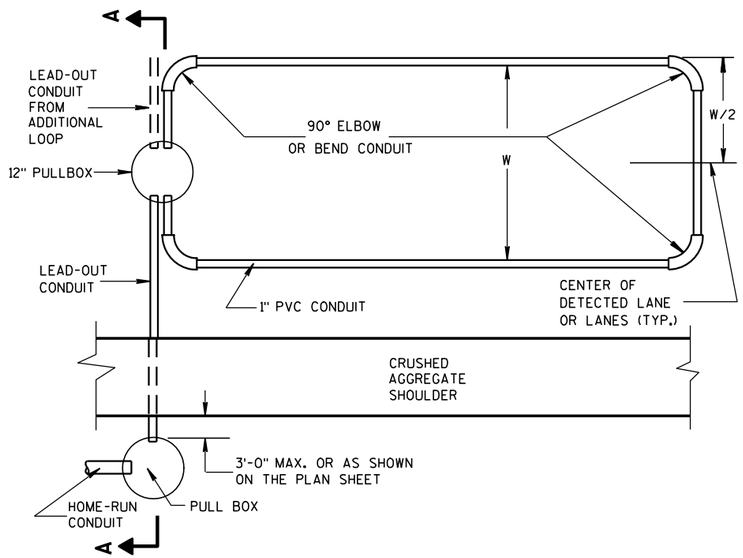
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



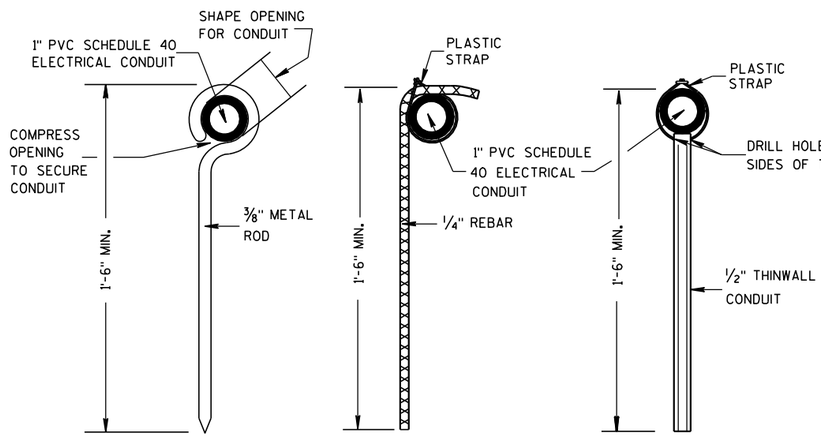
SECTION B-B
CURB & GUTTER
LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR
WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR
WITH 12" PULLBOX



TYPICAL DETAILS FOR HOLD DOWN PINS

LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/7/06	/S/ Balu Ananthanarayanan
DATE	STATE ELECTRICAL ENGI 268 HWYS

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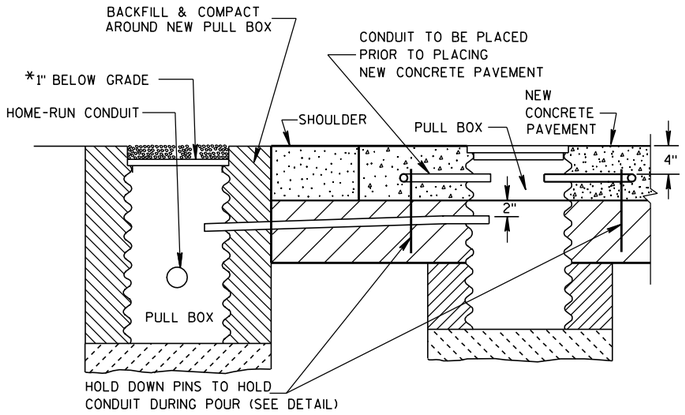


SECTION A-A
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

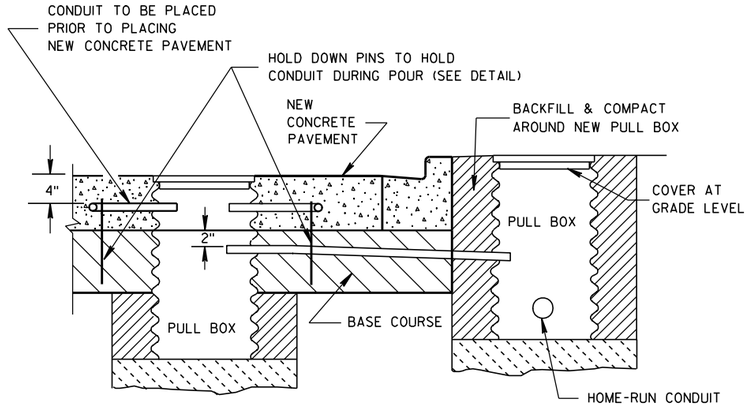
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, INTO THE PULL BOX IN THE PAVEMENT, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

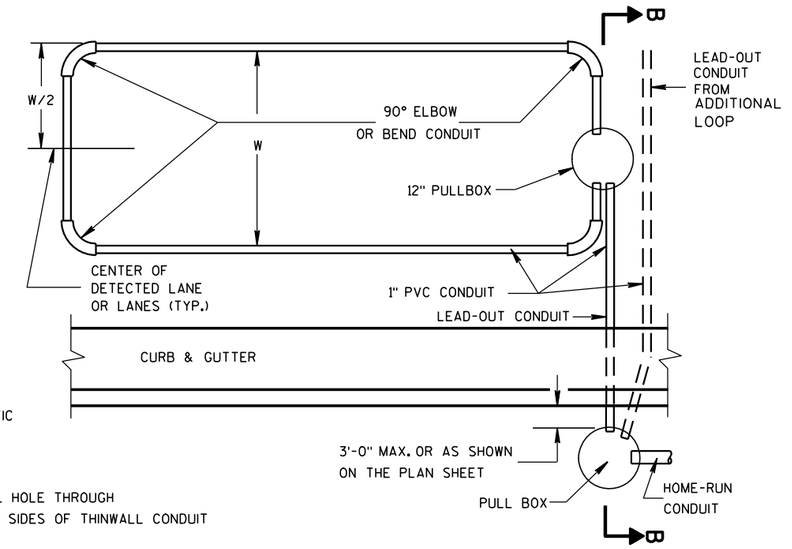
PROTECTION OF THE PULL BOX AND RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED.

12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.

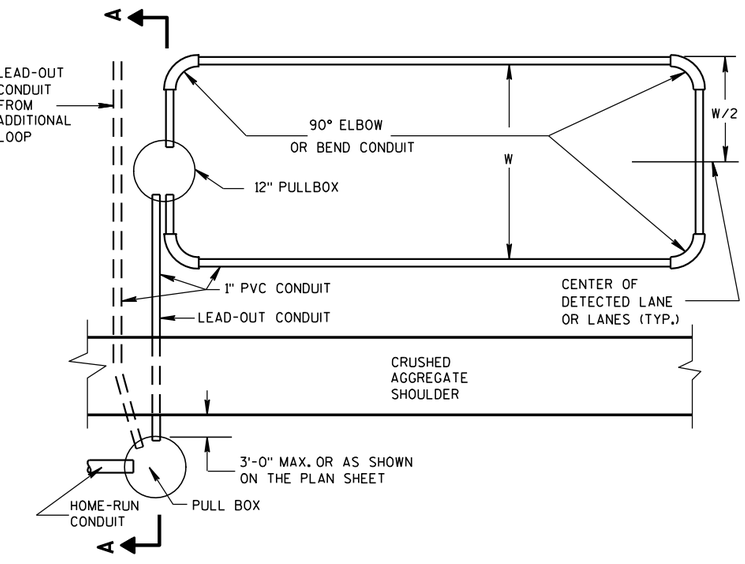


SECTION B-B
CURB & GUTTER

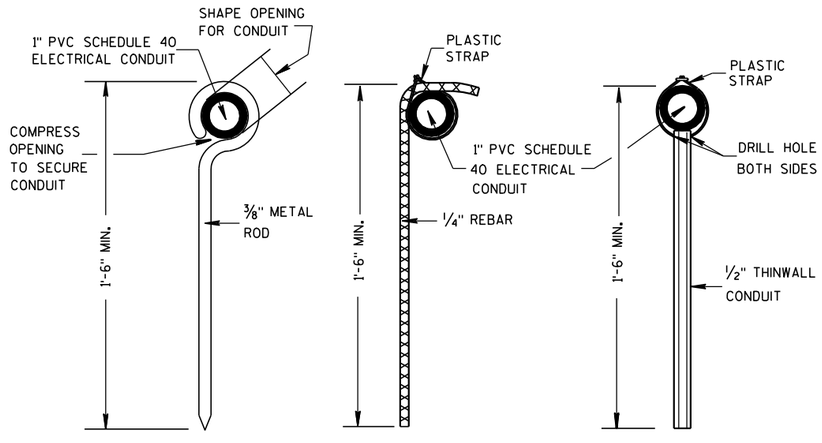
LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL DETAILS FOR HOLD DOWN PINS

LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/7/06 DATE

/S/ Balu Ananthar [illegible] an
STATE ELECTRICAL ENGI 269 HWYS

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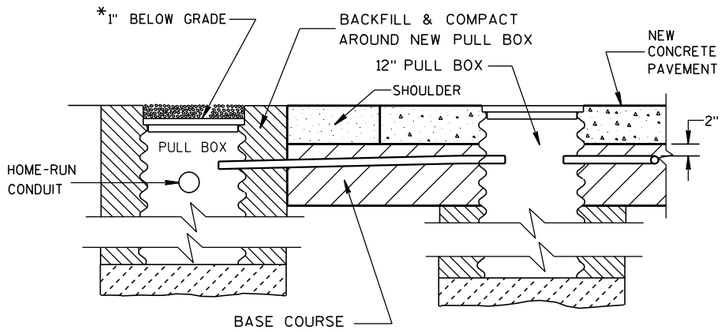

SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

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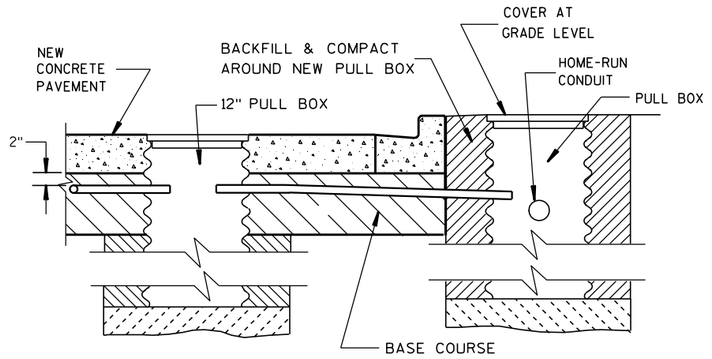
PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

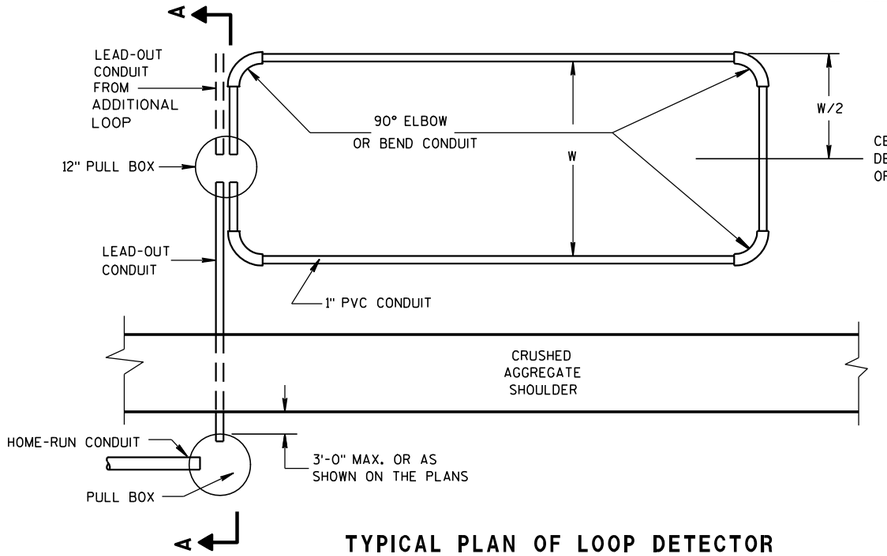
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



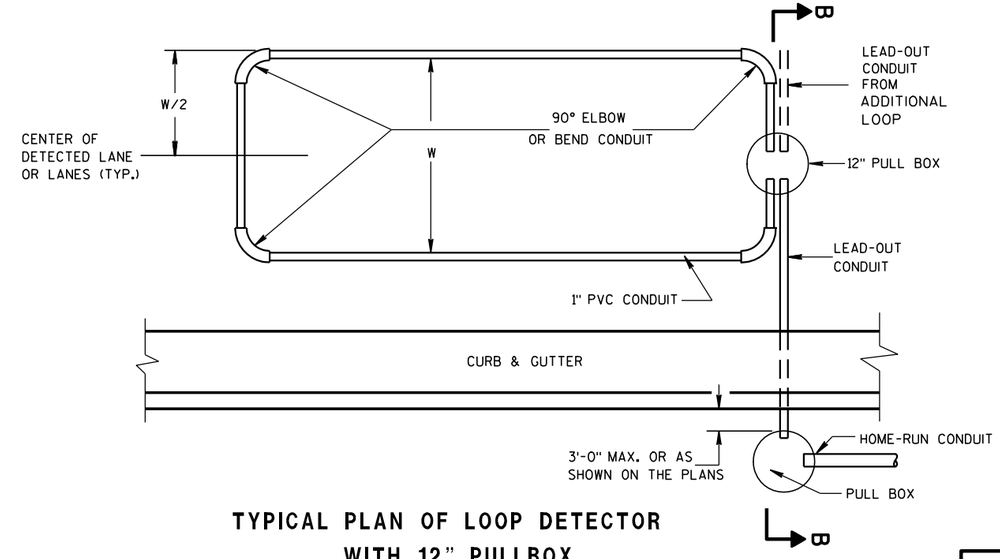
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMNET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-7-06 DATE — /S/ Balu Ananthanarayanan, STATE ELECTRICAL ENGI — HWYS

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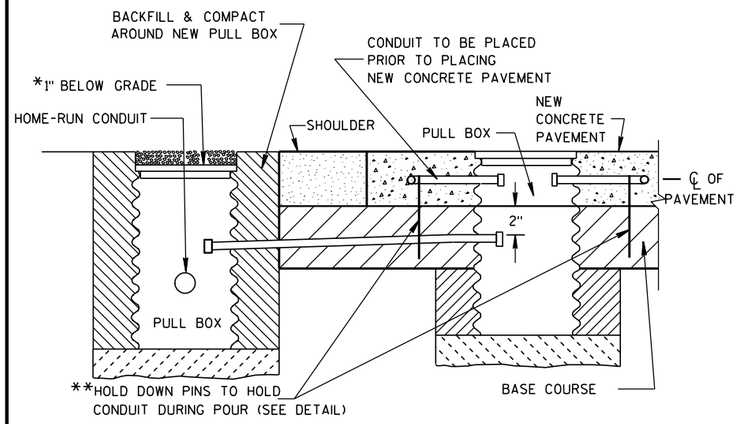
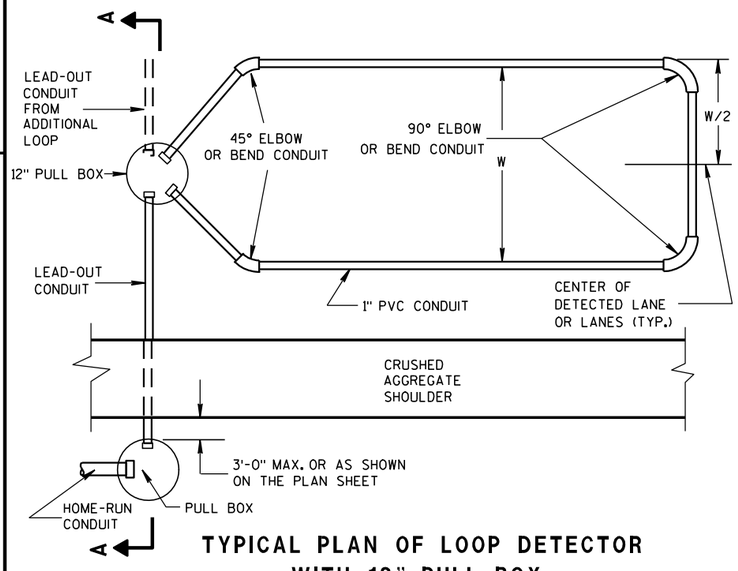


SECTION A-A
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES, INCLUDING LOCKING PULL BOX COVERS, BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

ANY PVC LEAD-OUT CONDUIT CONTAINING MORE THAN TWO TWISTED PAIR OF LOOP LEAD-IN WIRE SHALL BE 2".

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

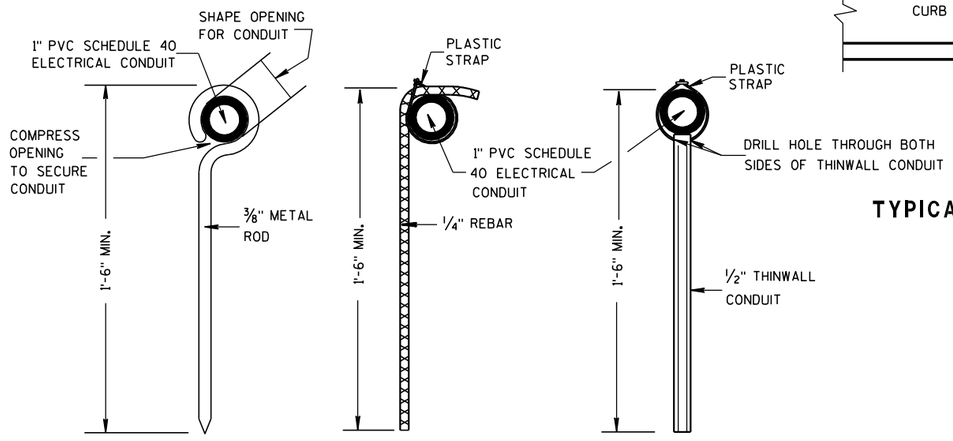
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, INTO THE PULL BOX IN THE PAVEMENT, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE PULL BOX IN THE BASE COURSE, AND THE RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED. ANY DAMAGE THAT OCCURS DUE TO FAILURE TO PROTECT THE INSTALLATION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

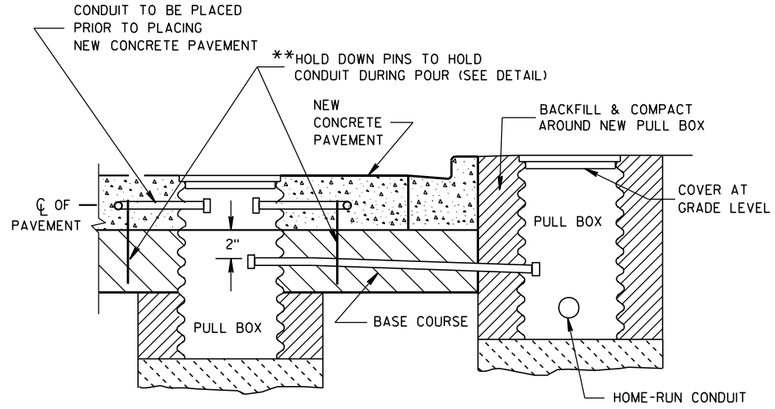
SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE ACCOMPLISHED UNDER THE DIRECTION OF THE PROJECT ENGINEER.

12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



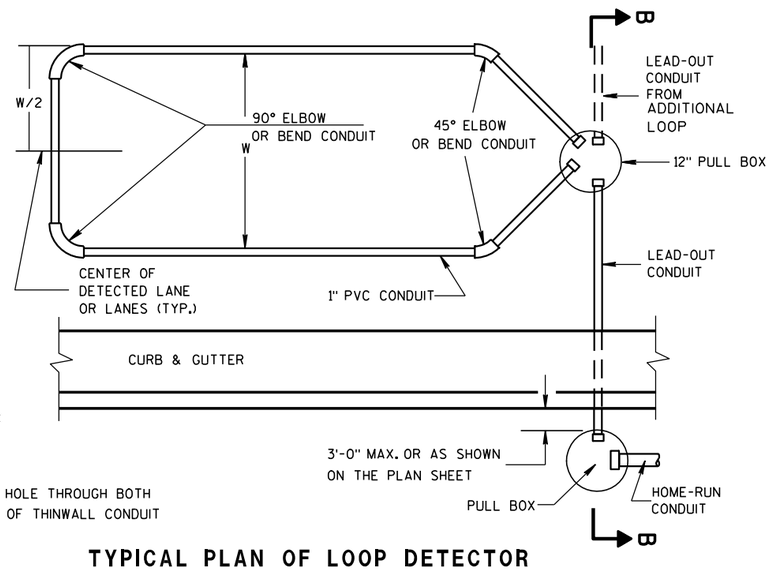
TYPICAL DETAILS FOR HOLD DOWN PINS

**HOLD DOWN PINS ARE REQUIRED TO STABILIZE THE LOOP TO MEET THE DIMENSIONAL AND PHYSICAL CONSTRUCTION REQUIREMENTS OF THE PLANS. THE NUMBER OF HOLD DOWN PINS SHALL BE DETERMINED IN THE FIELD, BY THE PROJECT ENGINEER.



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULL BOX

LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULL BOX 45 DEGREE ELBOWS TO PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-7-06 DATE — /S/ Balu Ananthanarayanan STATE ELECTRICAL ENGI — HWYS

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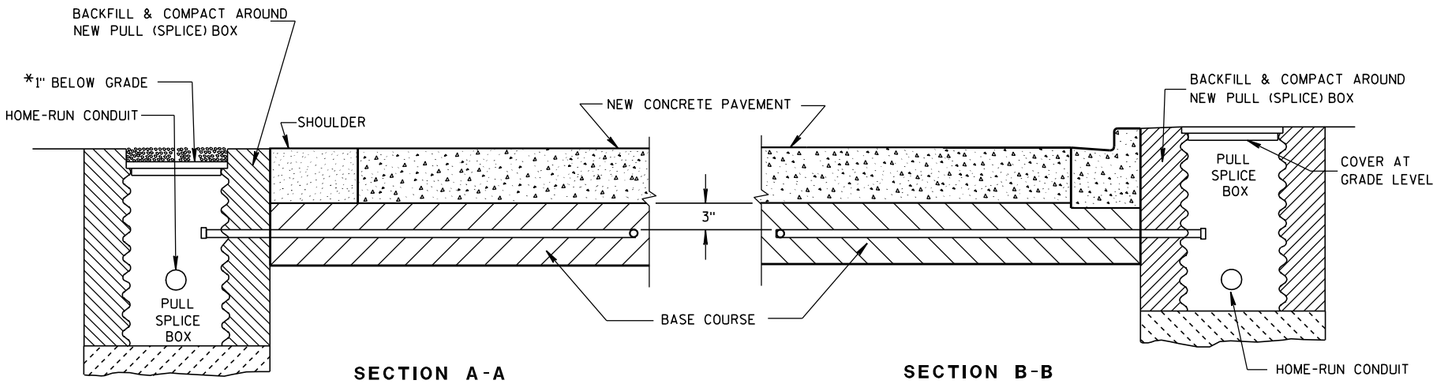


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

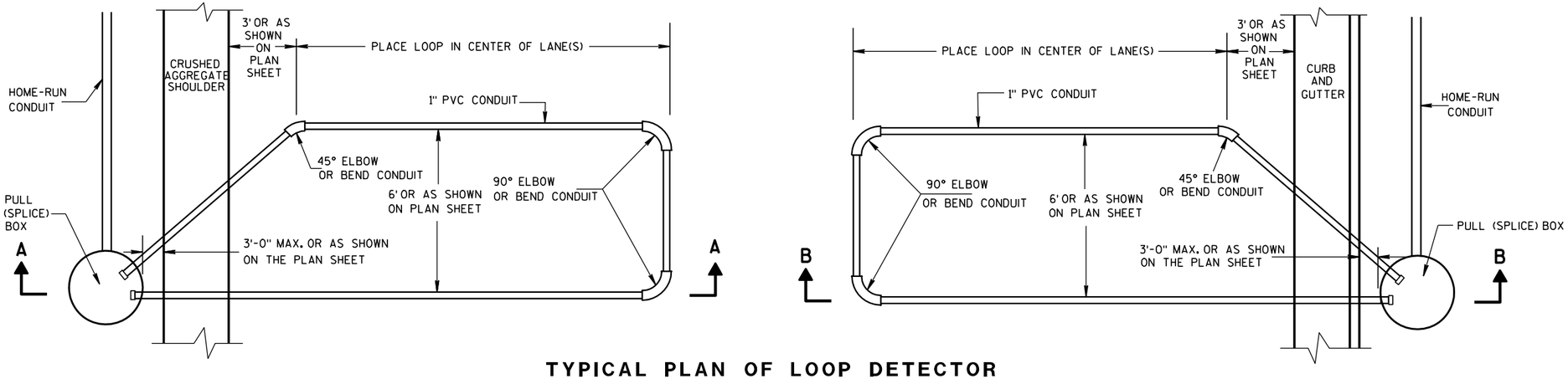
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6/7/06 — DATE
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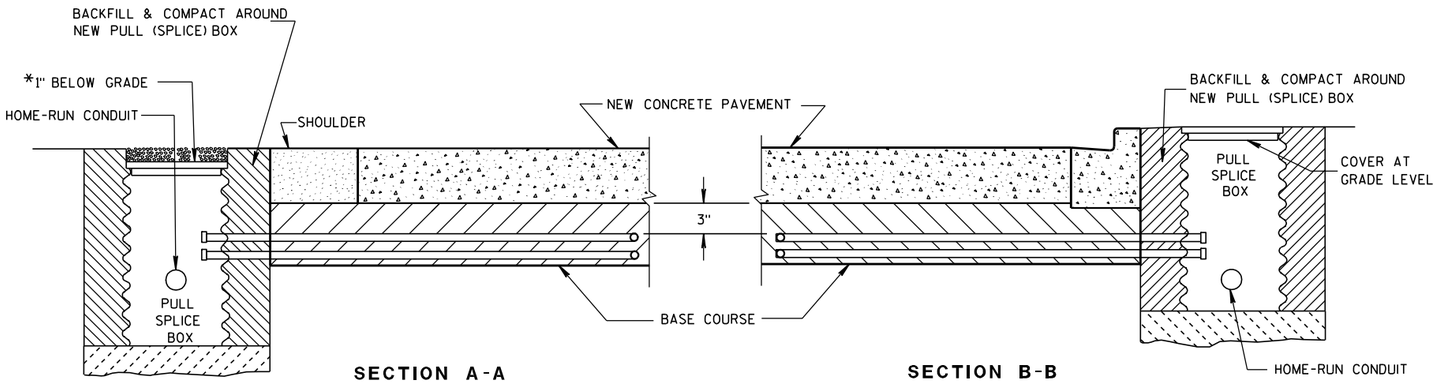


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

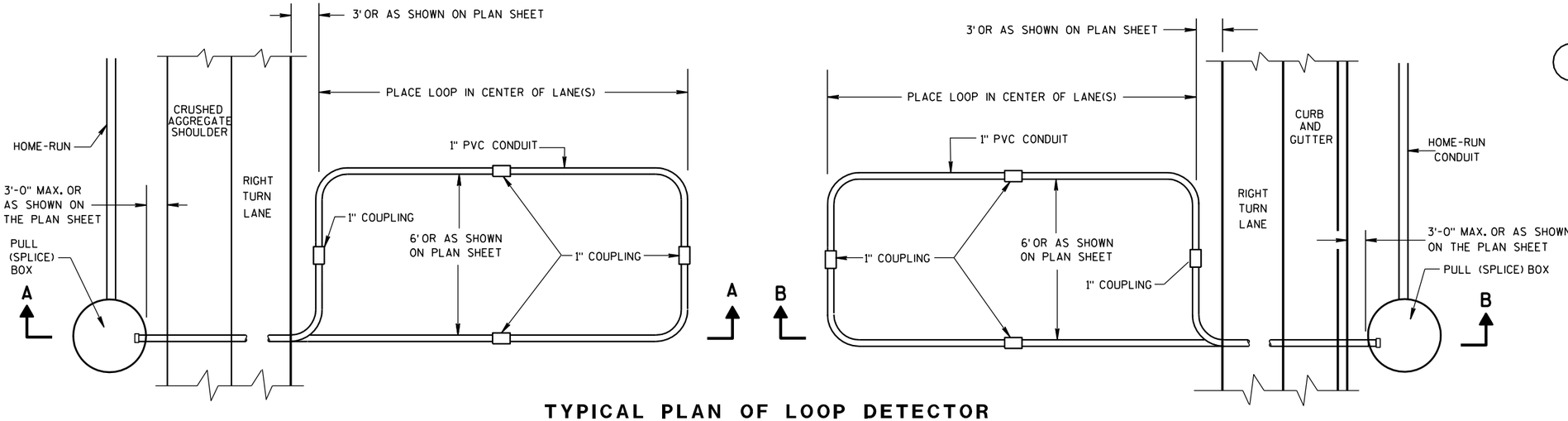
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

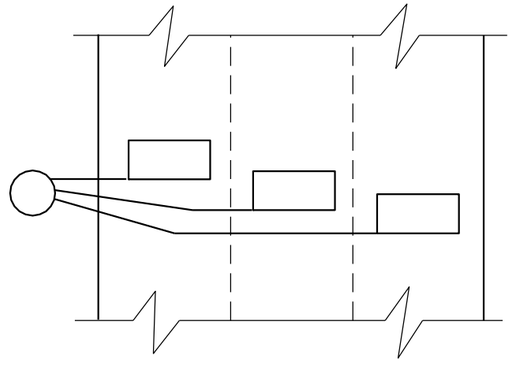
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6/7/06 DATE
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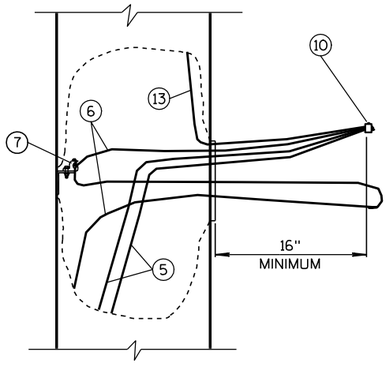
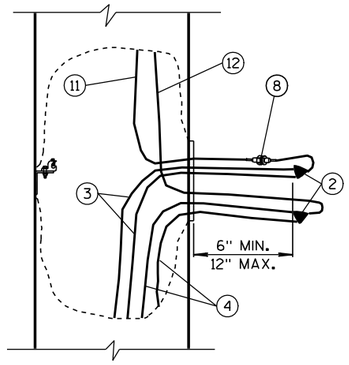
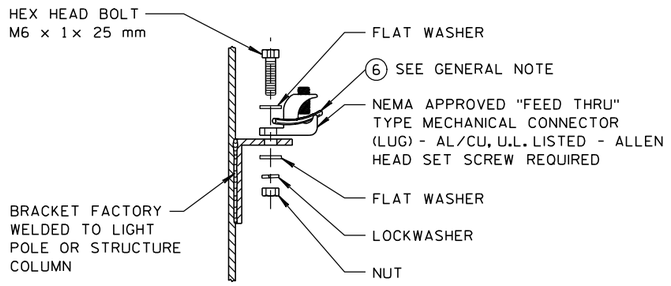


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



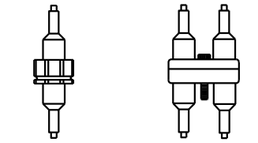
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



FUSE ASSEMBLIES

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

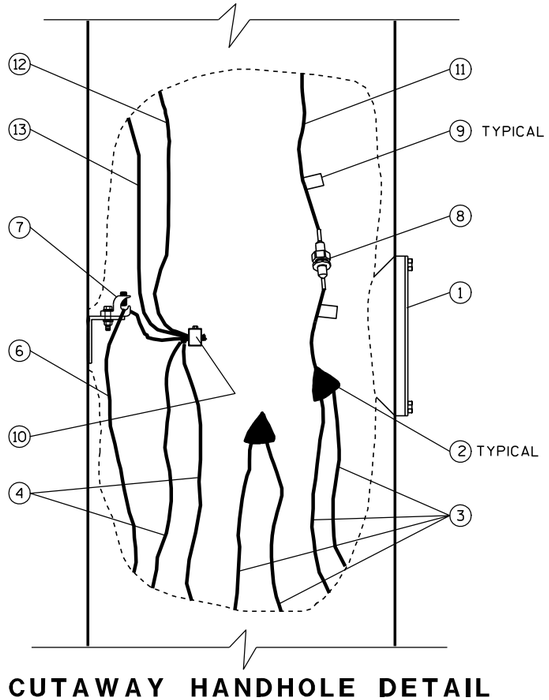
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

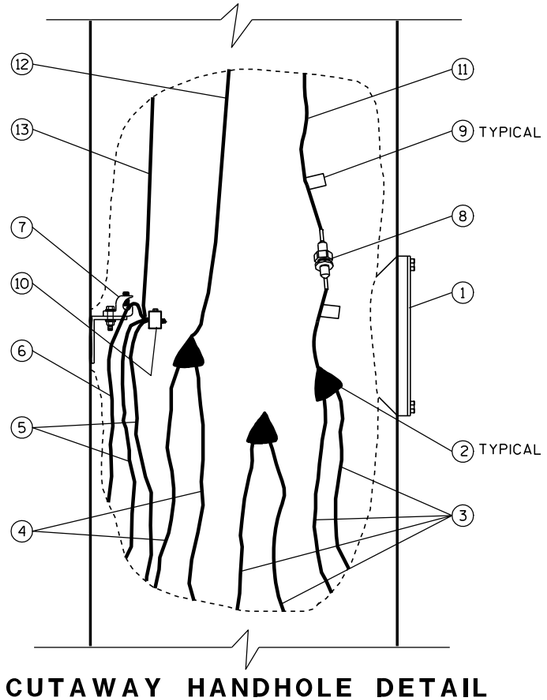
THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

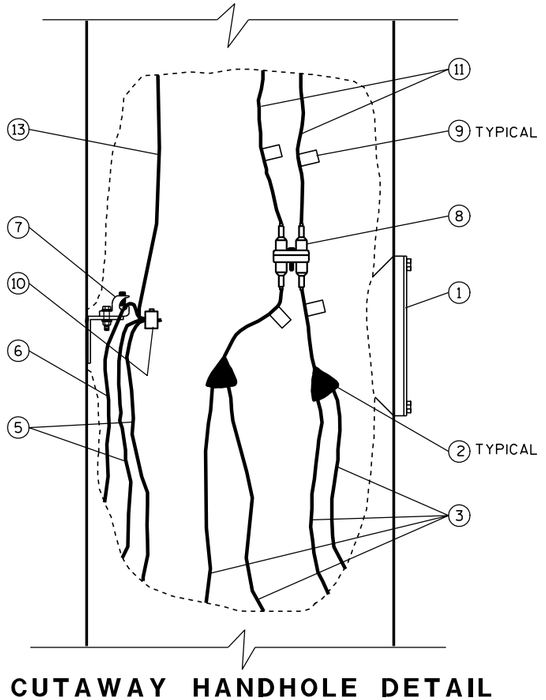
CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



CUTAWAY HANDHOLE DETAIL
GROUNDED NEUTRAL SYSTEMS
1-φ



CUTAWAY HANDHOLE DETAIL
ISOLATED NEUTRAL SYSTEMS
1-φ SHOWN; 3-φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL
PHASE-TO-PHASE SYSTEMS
1-φ SHOWN; 3-φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
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APPROVED
10/25/2010 DATE
/S/ John Corbin STATE ELECTRICAL ENGI
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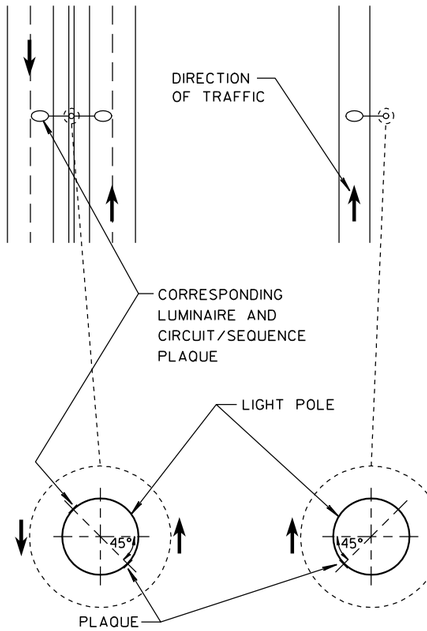


MEDIAN POLE **SINGLE ARM POLE**

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

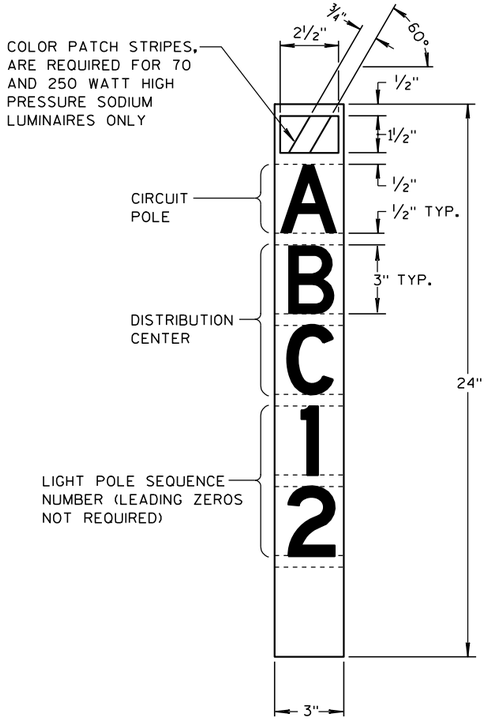
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS LUMINAIRES

1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE WITH WHITE STRIPE
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN
70 WATT - BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

IDENTIFICATION PLAQUES LIGHT POLES		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 10/25/2010 DATE	/S/ John Corbin STATE ELECTRICAL ENGI	275 HWYS
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GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

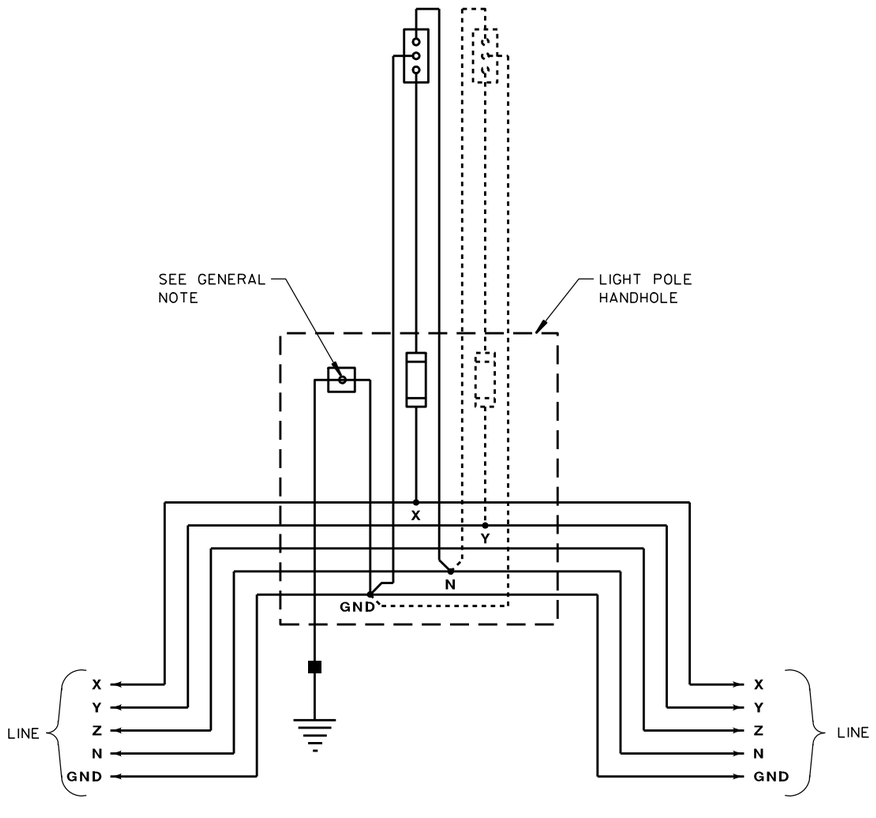
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

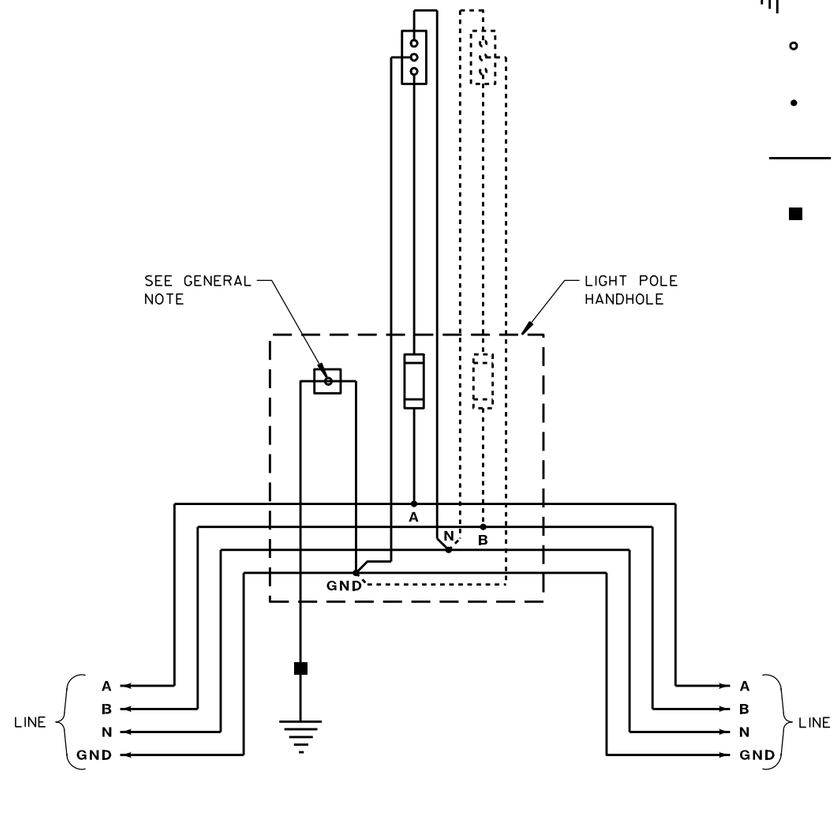
LINE VOLTAGE	BALLAST WATTAGE	
φ-GROUND	70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A

LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
3-φ 208Y/120VAC OR 480Y/277VAC 4 WIRE



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
1-φ 120/240VAC OR 240/480VAC 3 WIRE

ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 DATE
/S/ John Corbin STATE ELECTRICAL ENGI
FHWA
276
HWYS

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S.D.D. 10 A 5-2

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S.D.D. 10 A 5-2

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

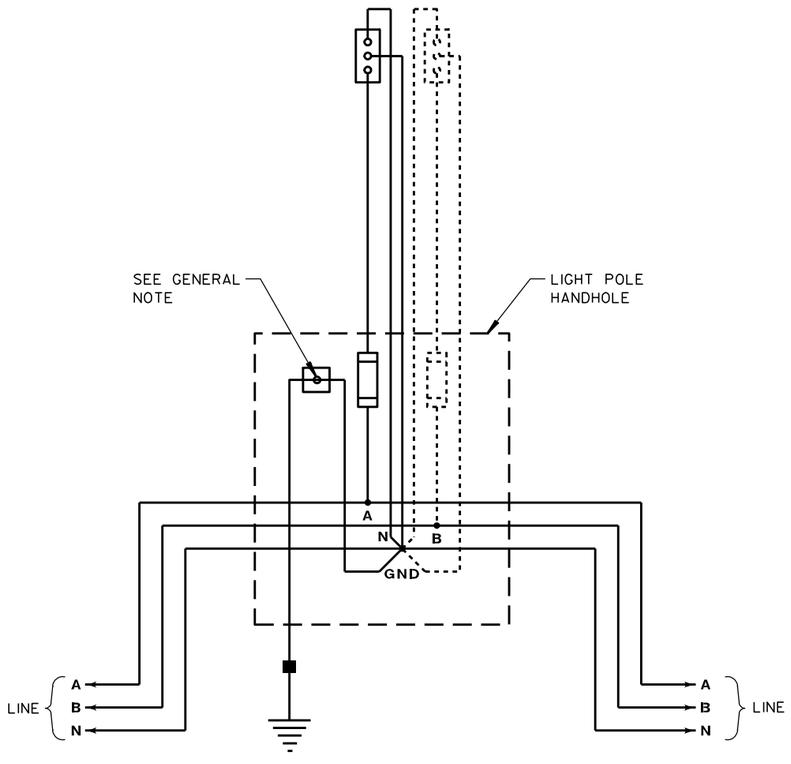
THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

LINE VOLTAGE ϕ-GROUND	BALLAST WATTAGE 70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A



TYPICAL WIRING DIAGRAM
GROUNDED NEUTRAL SYSTEM
1-ϕ 240/480VAC 3 WIRE OR 480VAC 2 WIRE

LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD

ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
GROUNDED NEUTRAL SYSTEMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010
DATE
/S/ John Corbin
STATE ELECTRICAL ENGI 277 HWYS
FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

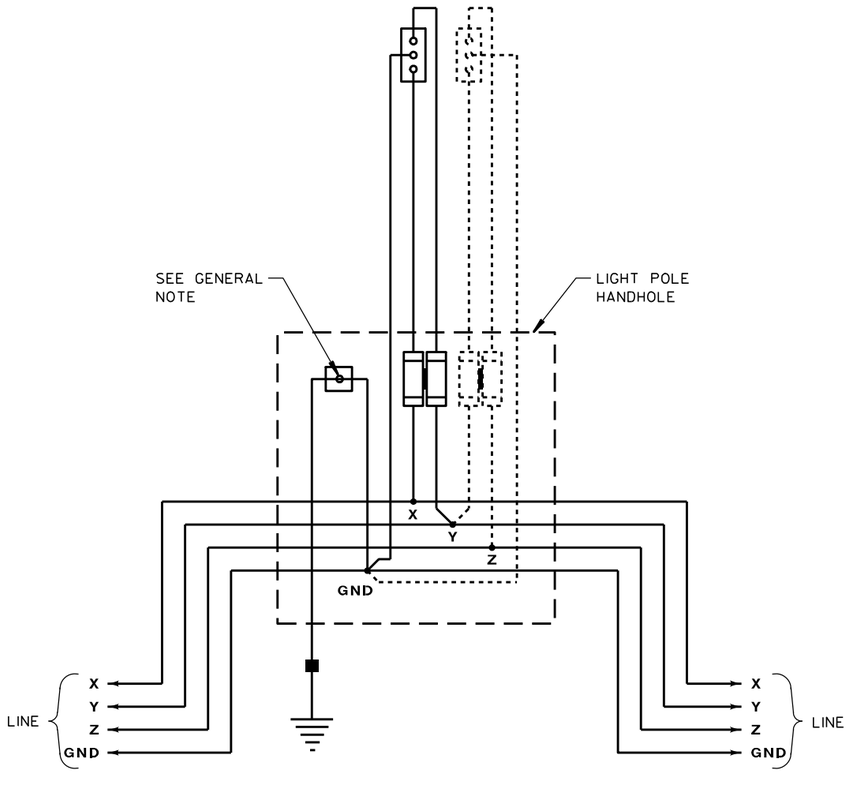
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

LINE VOLTAGE φ-φ	BALLAST WATTAGE 70-200 W	BALLAST WATTAGE 250-400 W
240 VAC	2P-5 A	2P-5 A
480 VAC	2P-5 A	2P-5 A

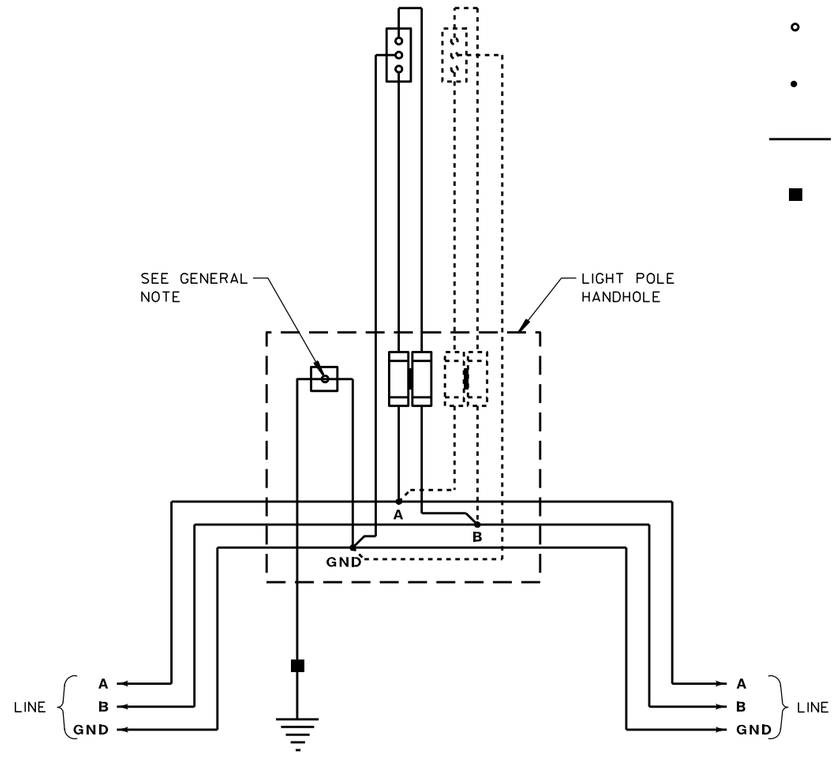
LEGEND

A, B, X, Y, Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM

PHASE-TO-PHASE DELTA SYSTEM
3-φ 480VAC 3 WIRE



TYPICAL WIRING DIAGRAM

UNGROUNDED SYSTEM
1-φ 120-120VAC 2 WIRE

ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES PHASE-TO-PHASE SYSTEMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/25/2010 DATE

/S/ John Corbin STATE ELECTRICAL ENGI

278

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S.D.D. 10 A 7-2

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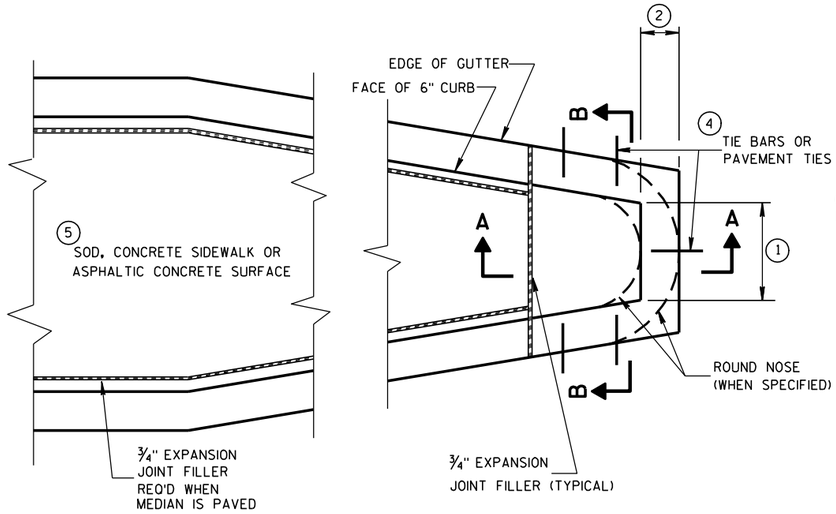
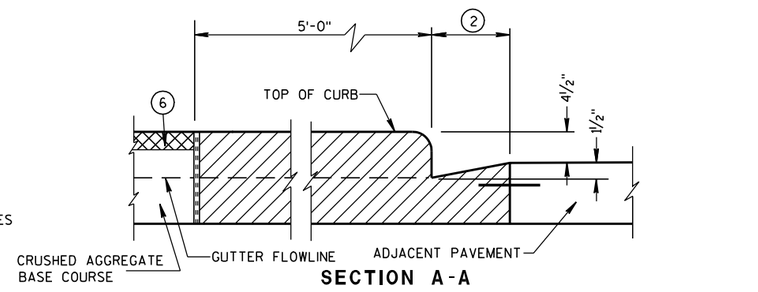




CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

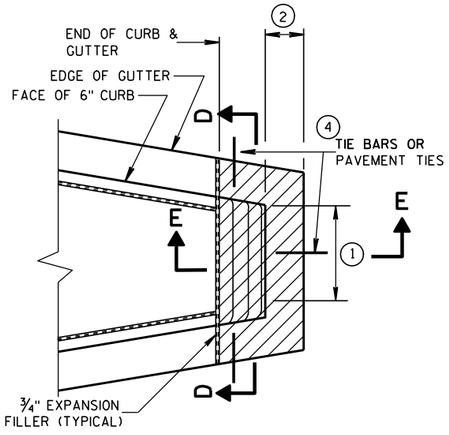
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

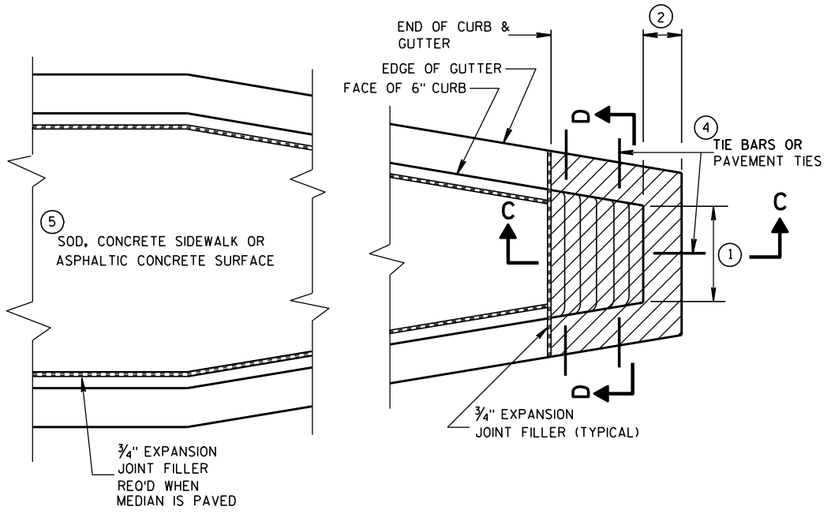
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

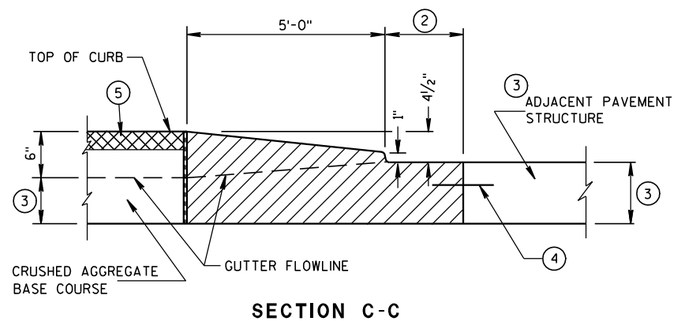
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

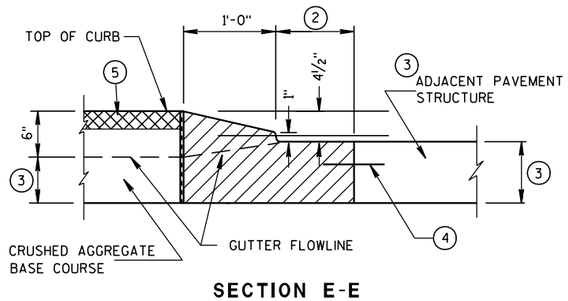
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



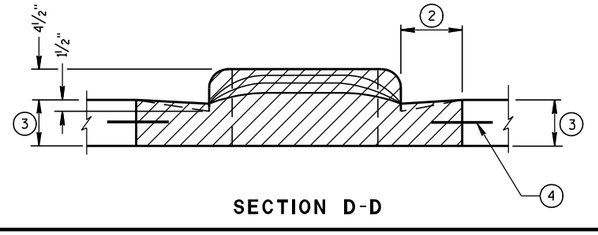






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	279 NT

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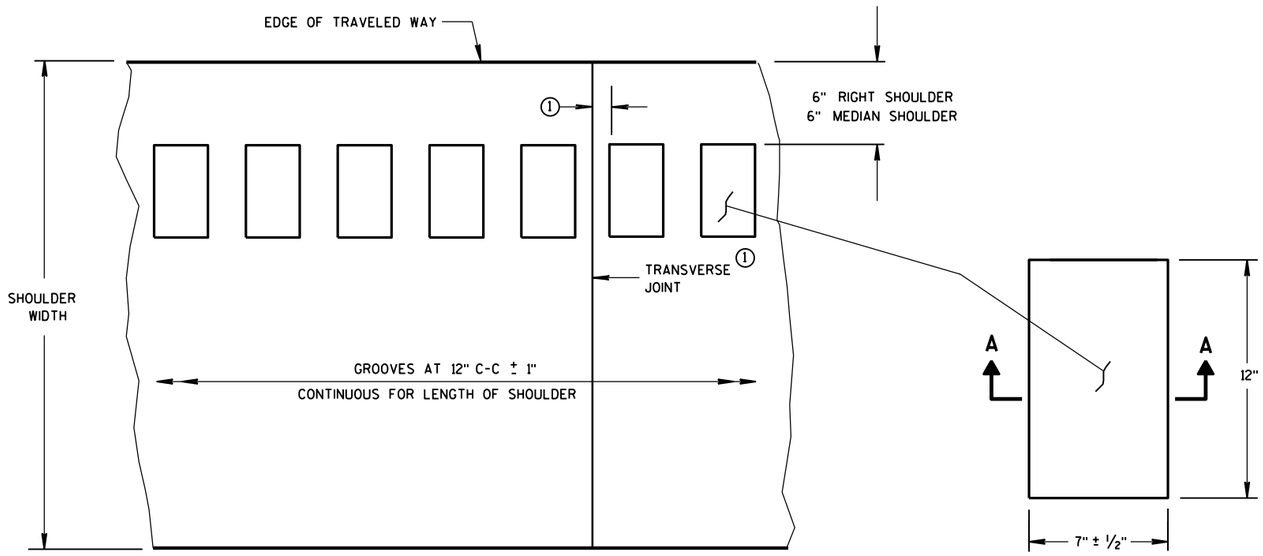


PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

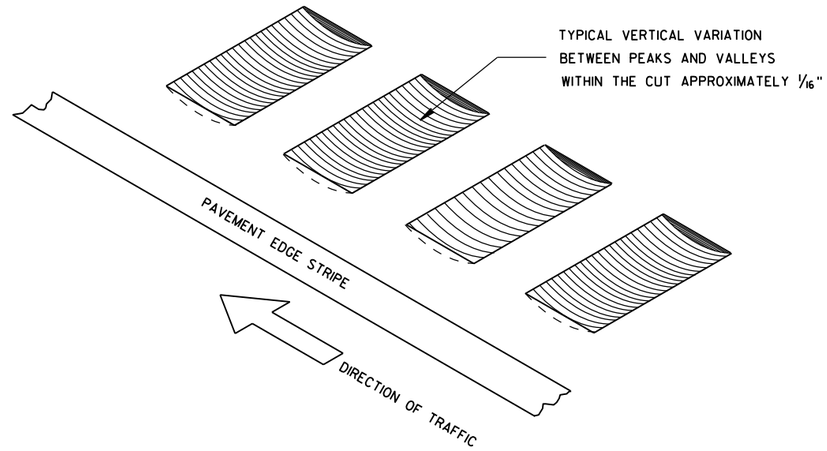
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

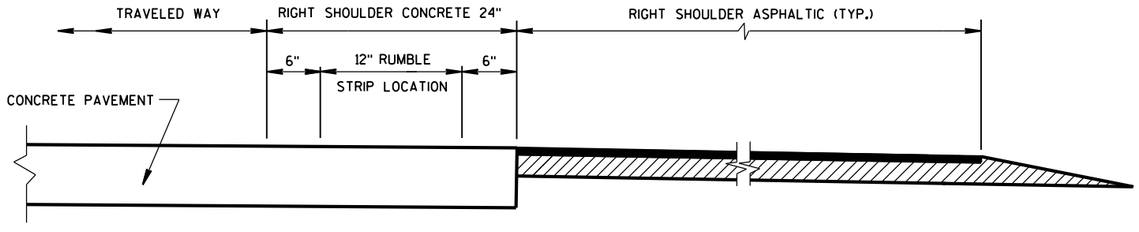
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

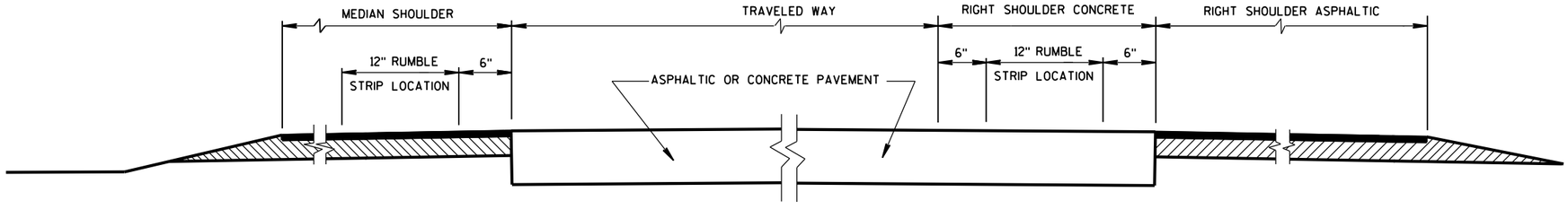
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



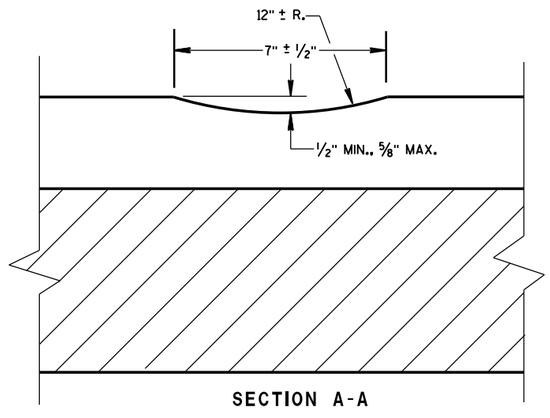
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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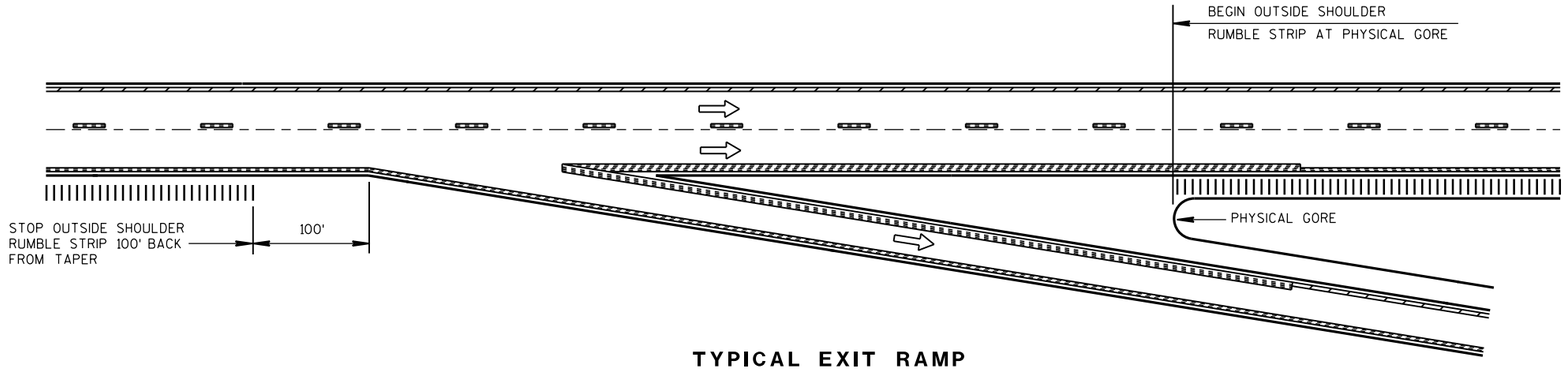
S.D.D. 13 A 5-5a



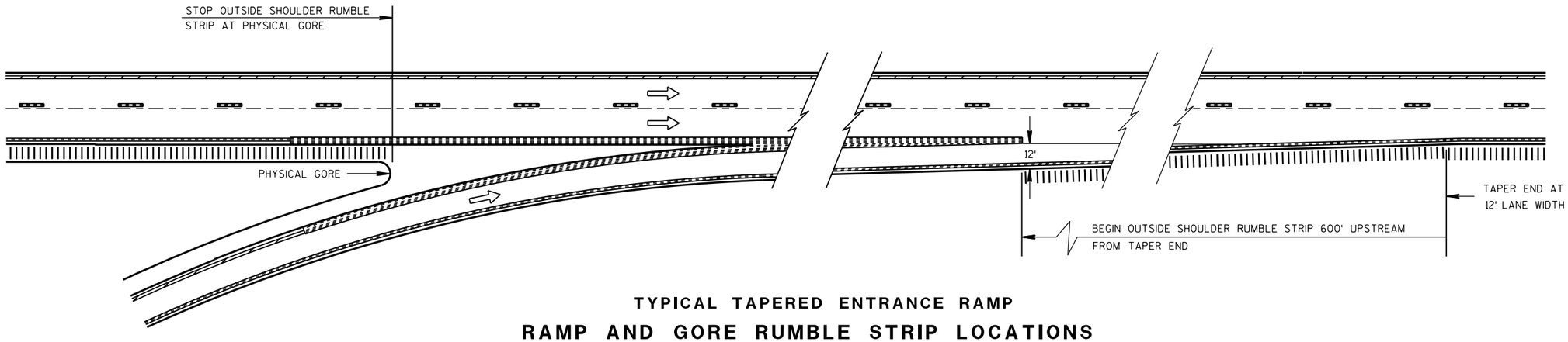
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

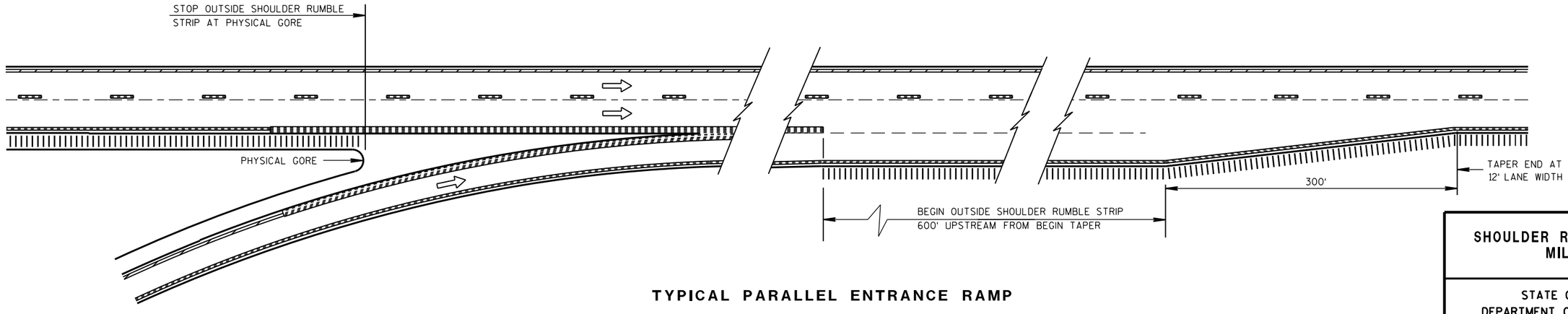
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

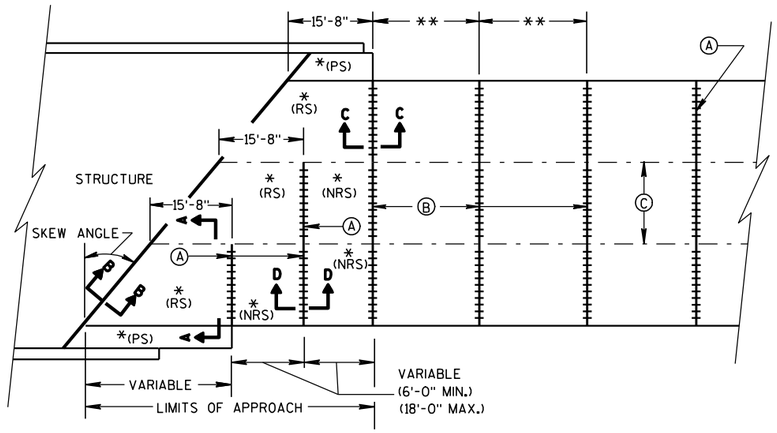
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

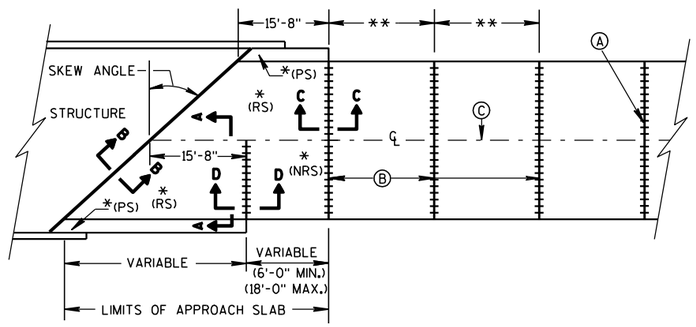
APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS ENGINEER
FHWA

6

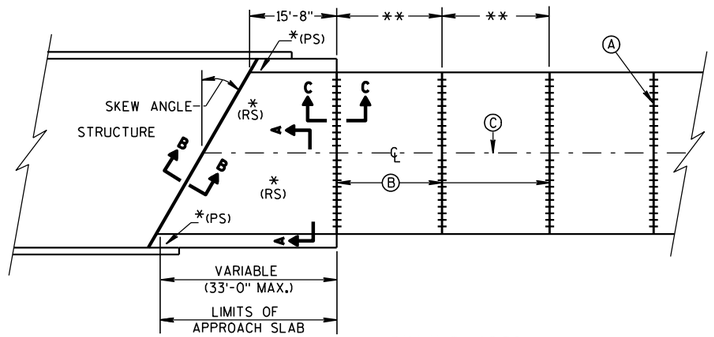
S.D.D. 13 A 5-5b



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



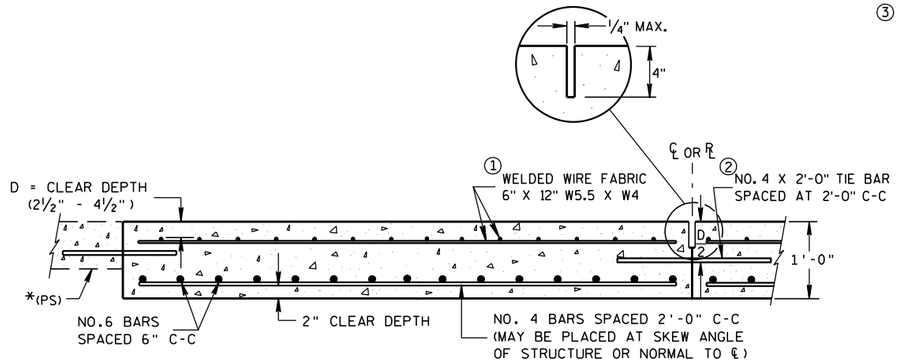
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

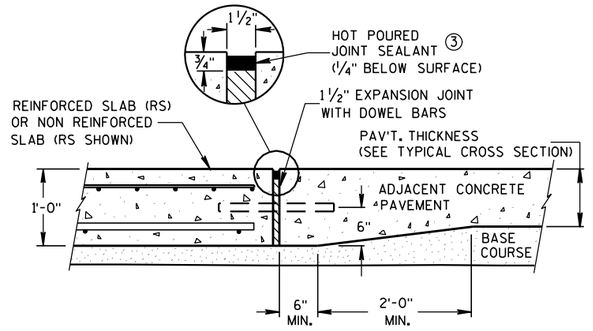
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

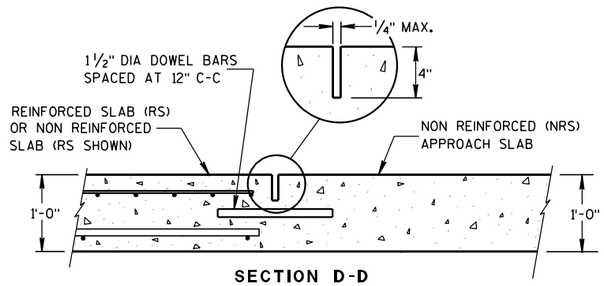
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

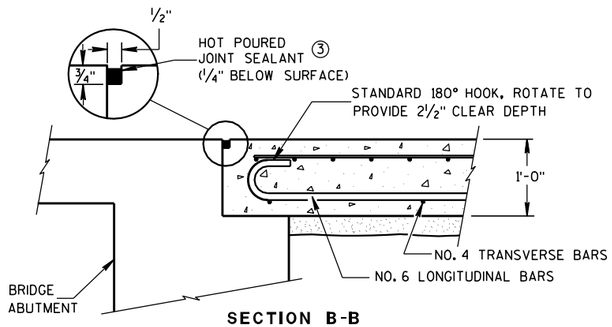
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

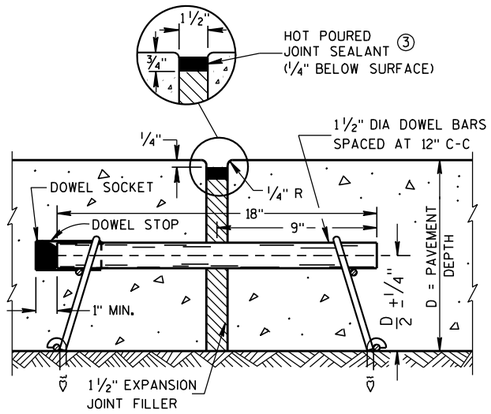
(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE — ENGINEER
FHWA

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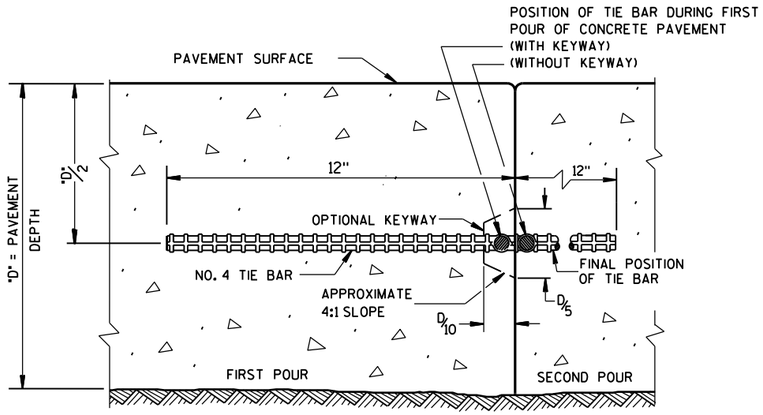
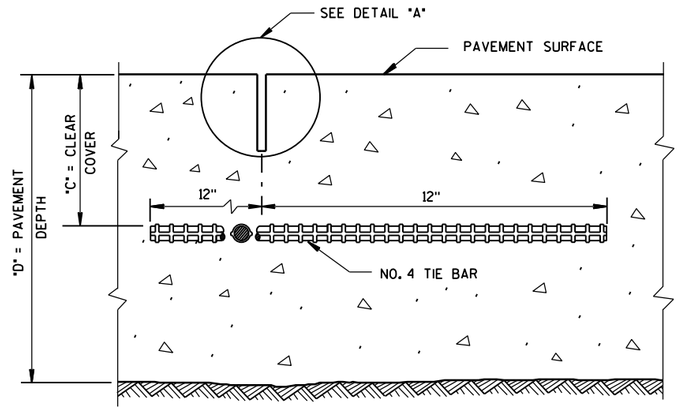
S.D.D. 13 B 2-6



CONSTRUCTION JOINT



SAWED JOINT

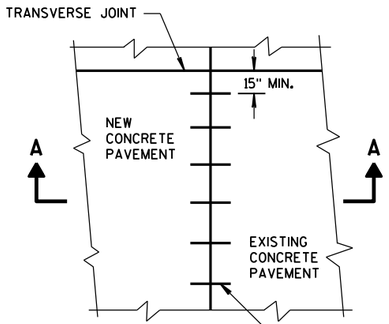
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

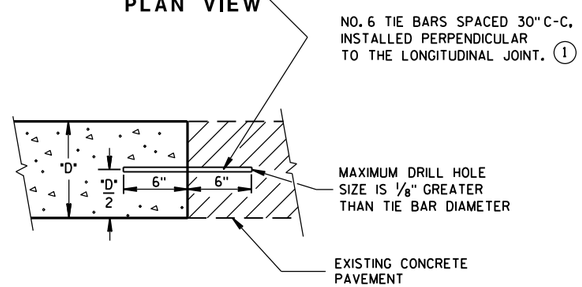
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

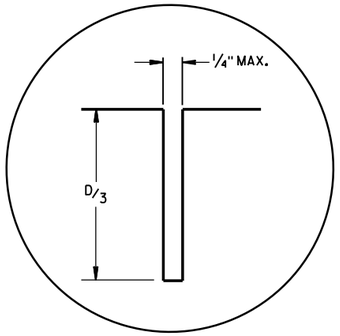


PLAN VIEW



SECTION A-A

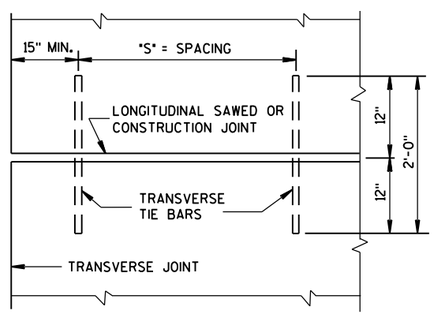
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER

FHWA

6

S.D.D. 13 C 1-16

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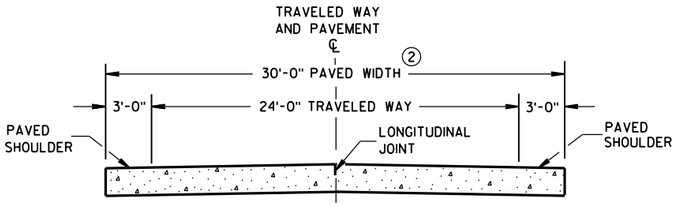
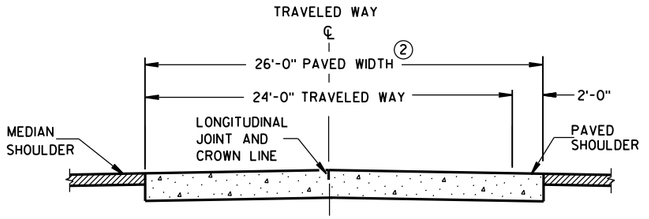
S.D.D. 13 C 1-16

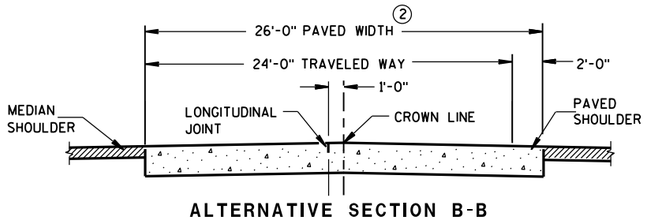


SECTION A-A ①

TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B ①

DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

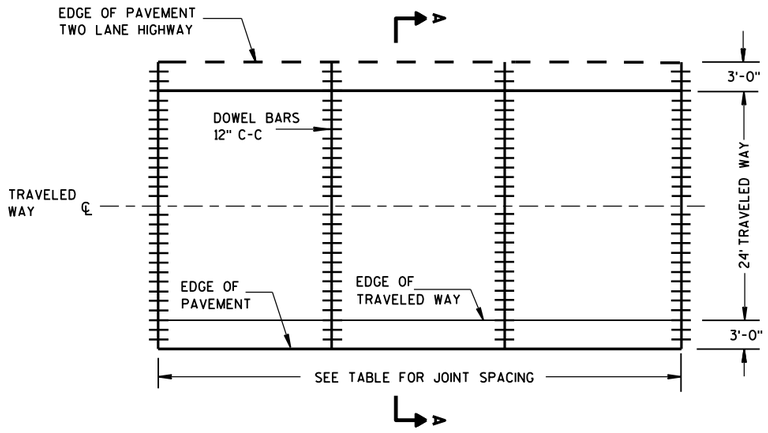
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

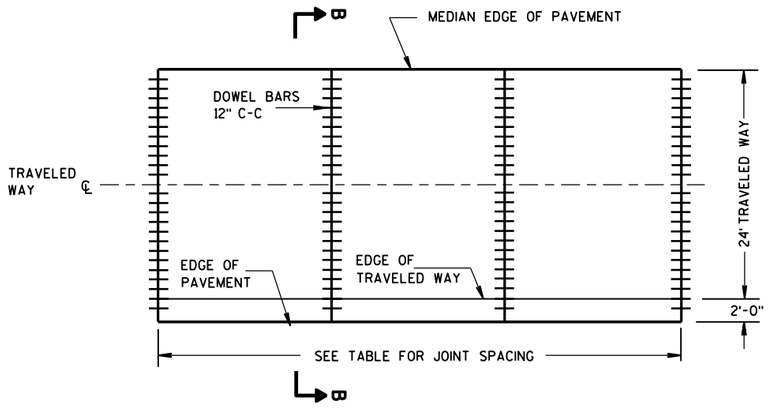
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



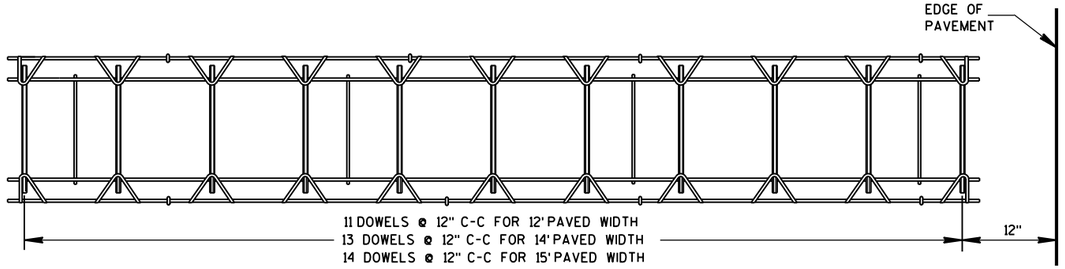
CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED
CONCRETE PAVEMENT

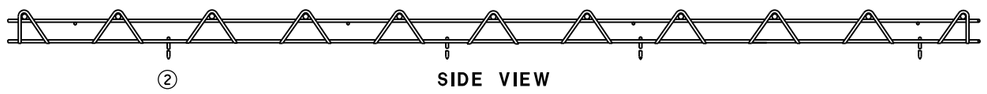
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 C 11-11a



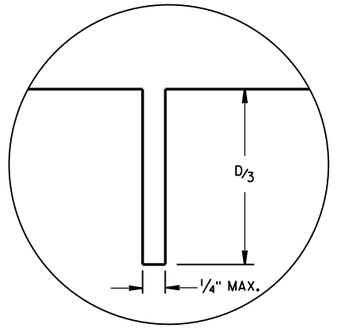
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

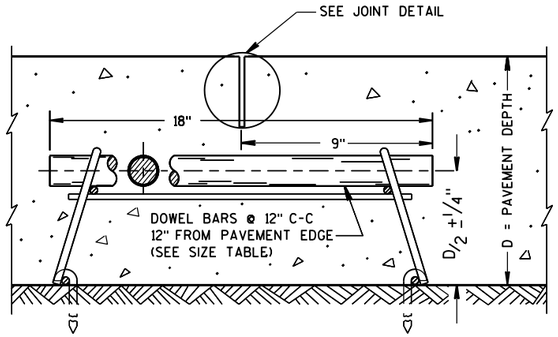
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

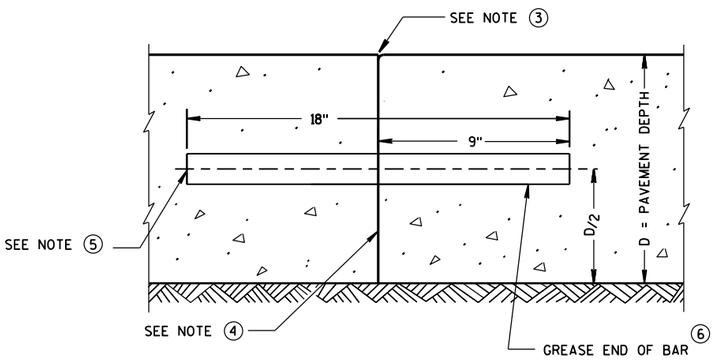
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

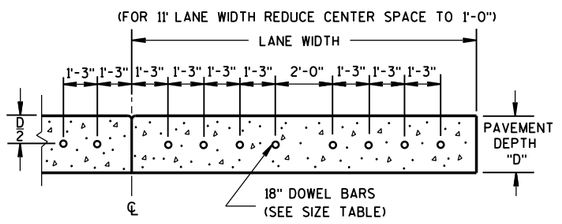
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013 DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER

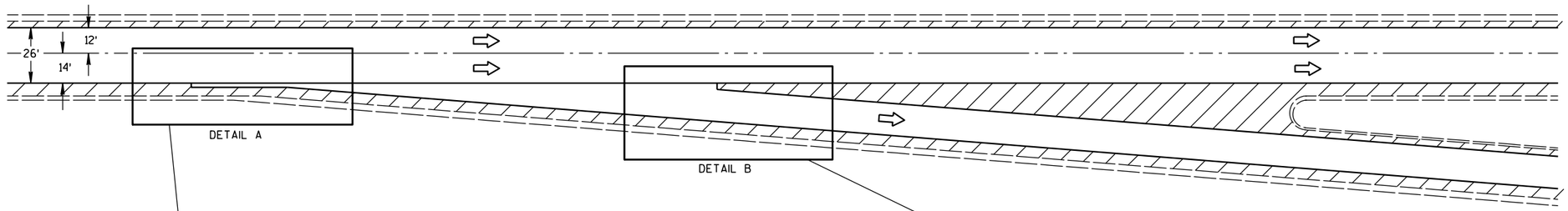
FHWA

6

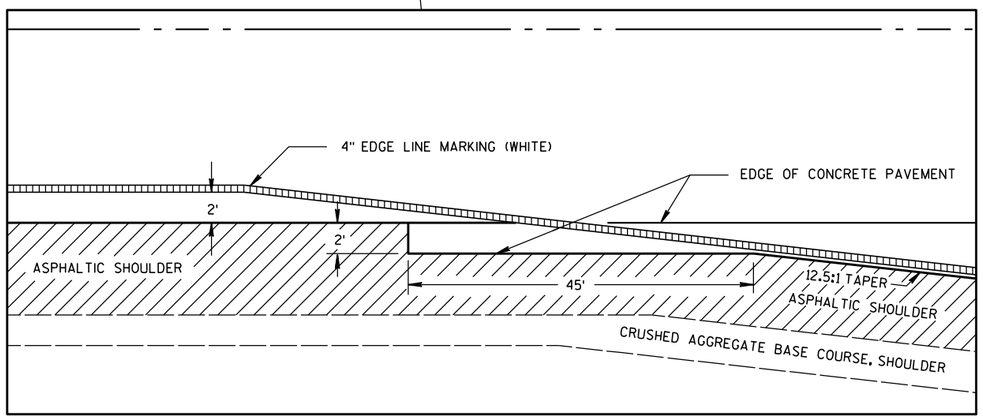
S.D.D. 13 C 11-11b

6

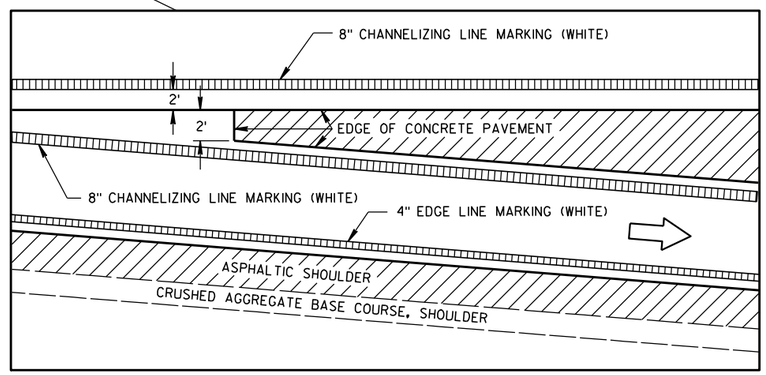
S.D.D. 13 C 11-11b



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 17-1a

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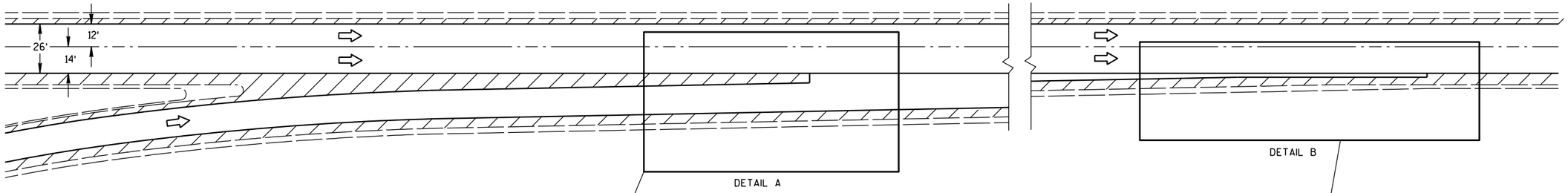
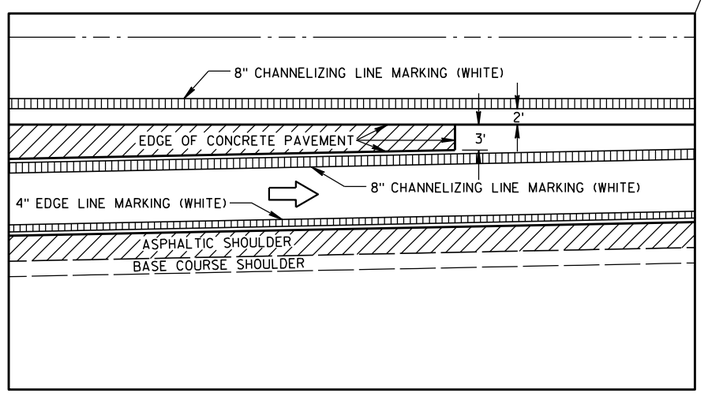
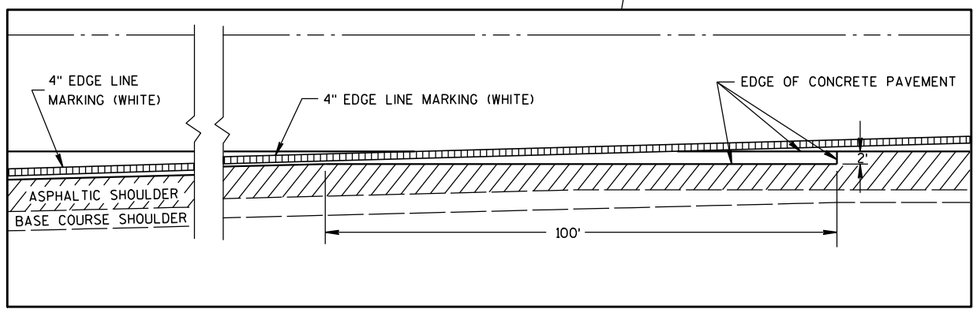
S.D.D. 13 C 17-1a



ENTRANCE RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

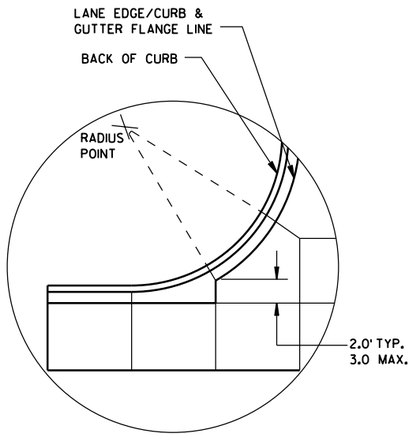
5/27/98
DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

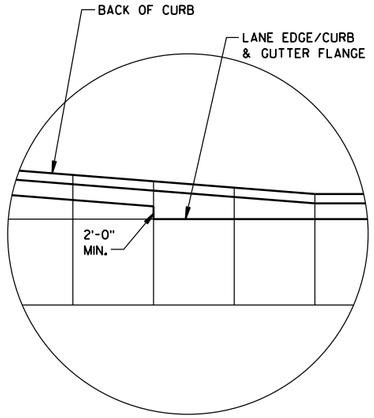
FHWA

6

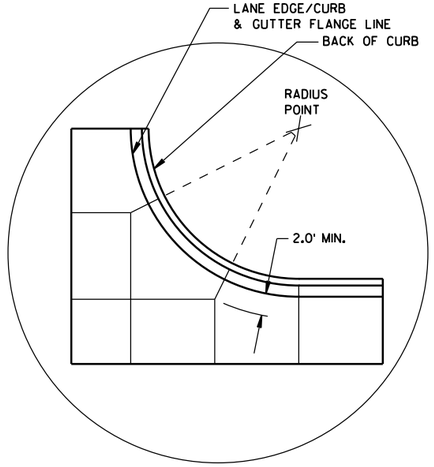
S.D.D. 13 C 17-1b



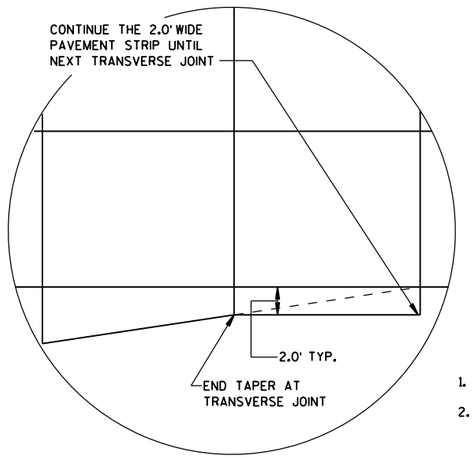
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

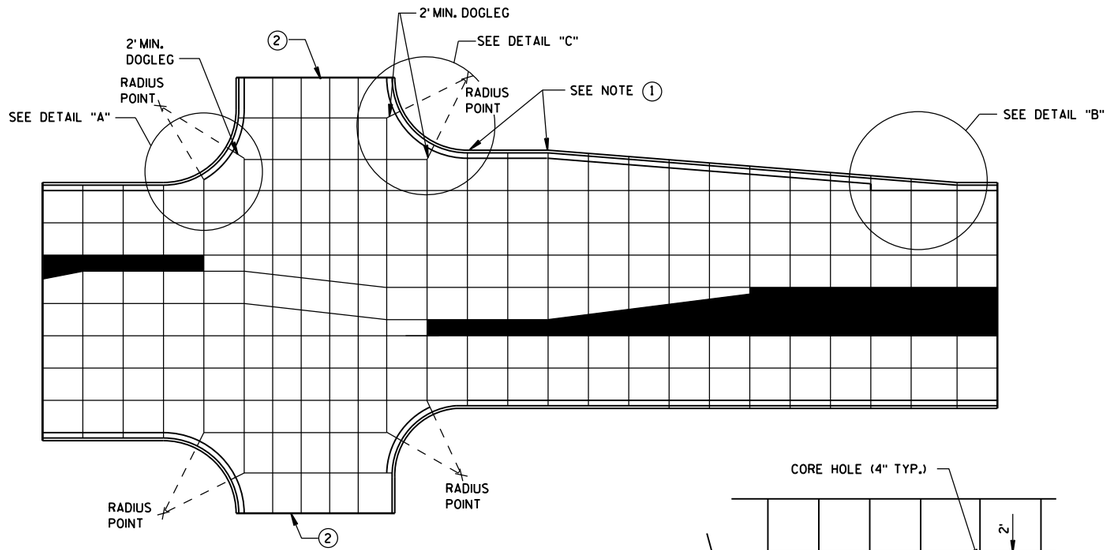
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

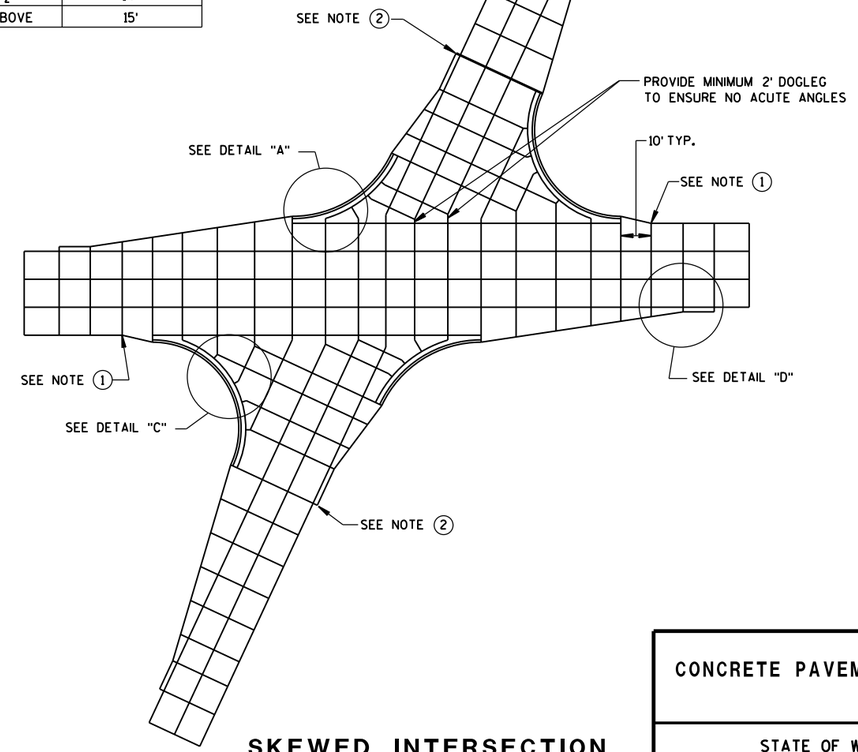
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



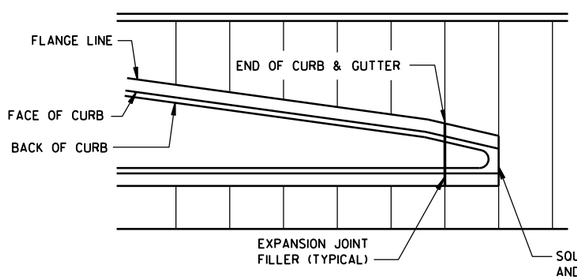
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

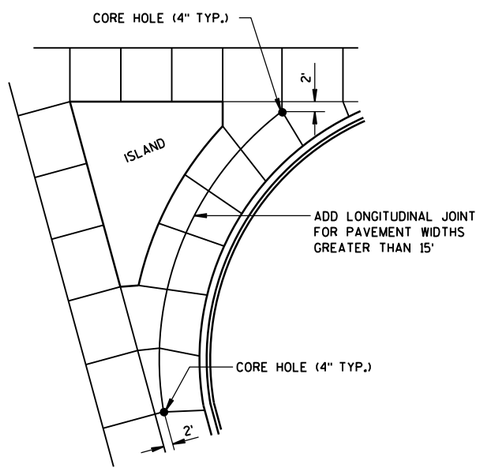
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



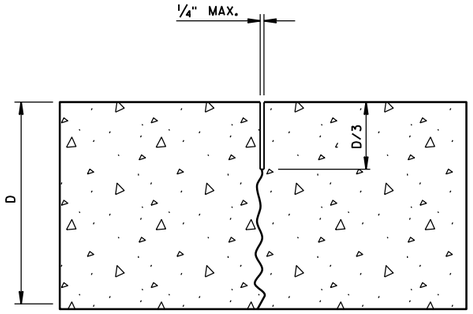
LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

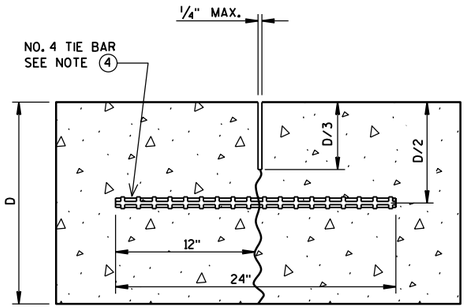
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 18-2a



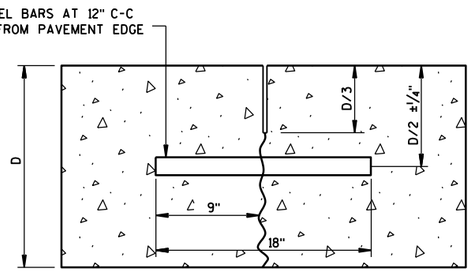
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

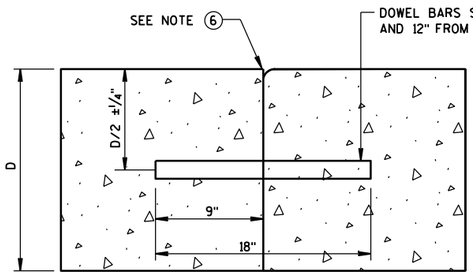
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



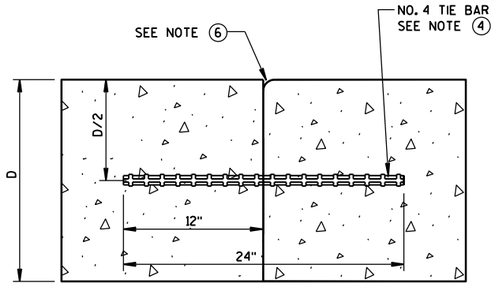
DOWELED-TRANSVERSE

CONTRACTION JOINTS

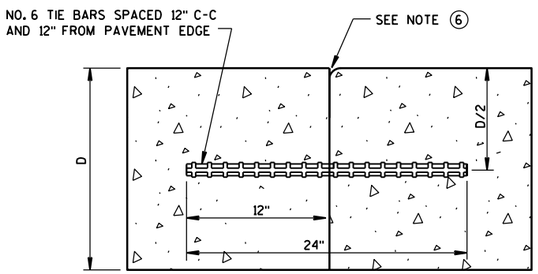
SEE NOTE (2)



DOWELED TRANSVERSE

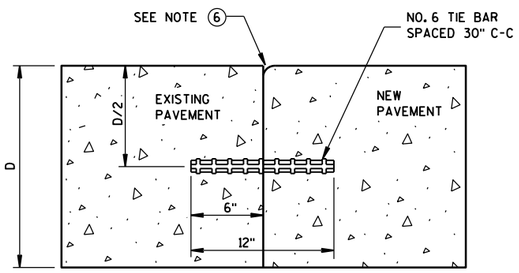


TIED LONGITUDINAL



TIED TRANSVERSE

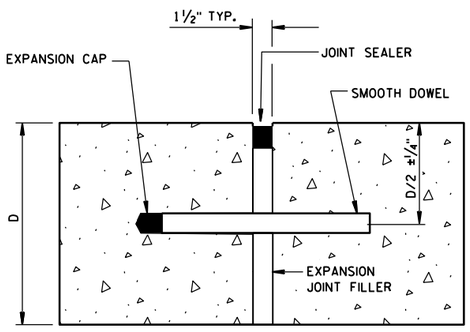
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

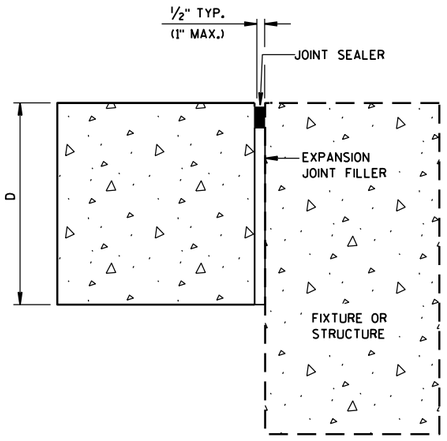
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

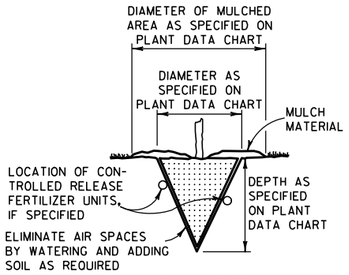
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

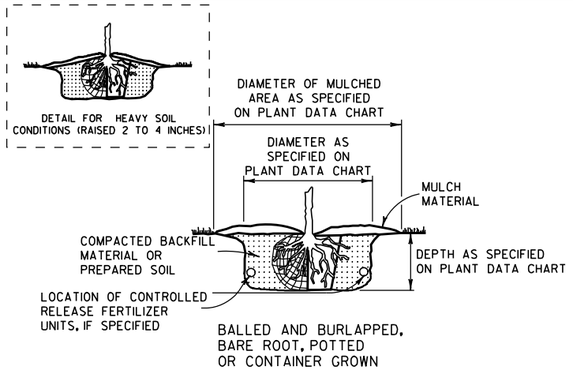
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

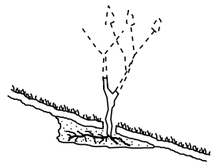
S.D.D. 13 C 18-2c



MACHINE MOVED

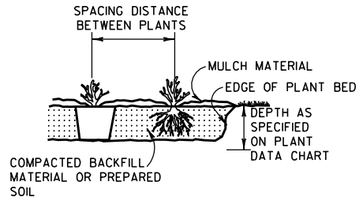


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



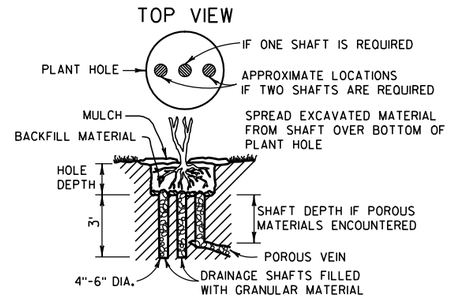
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



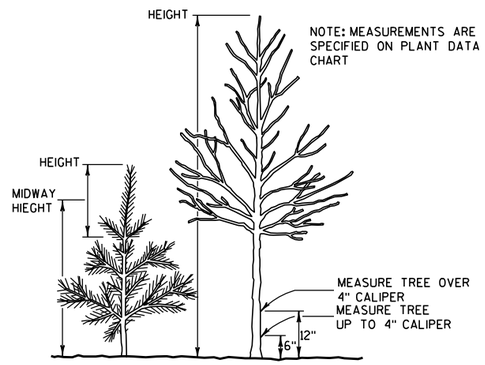
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

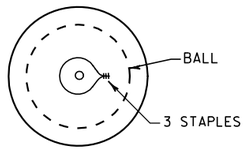


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

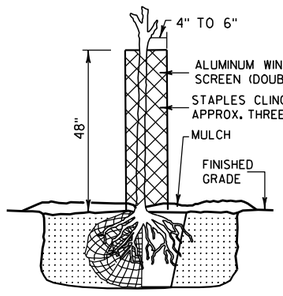
DRAINING



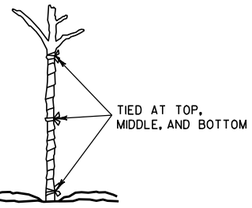
MEASURING



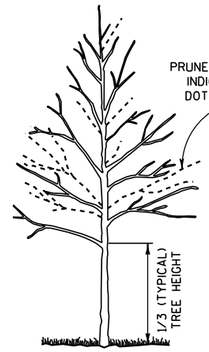
TOP VIEW



RODENT PROTECTION



WRAPPING

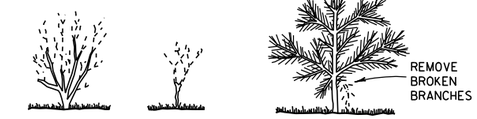


TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

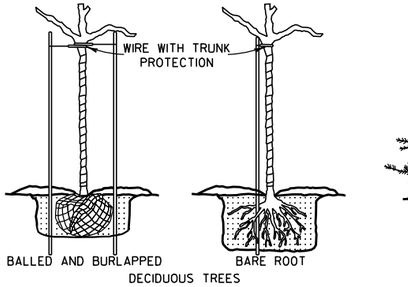


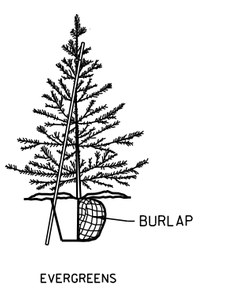
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

SUMAC

TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

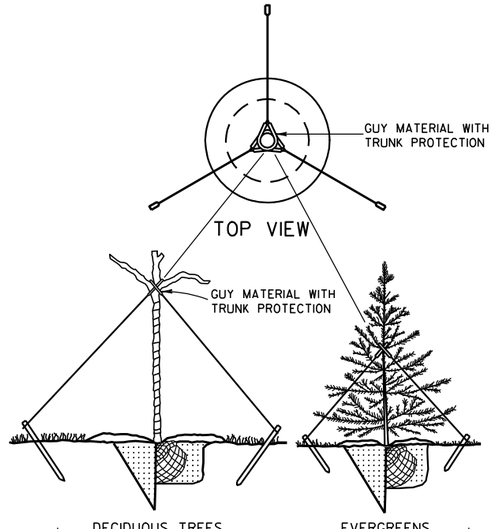
PRUNING





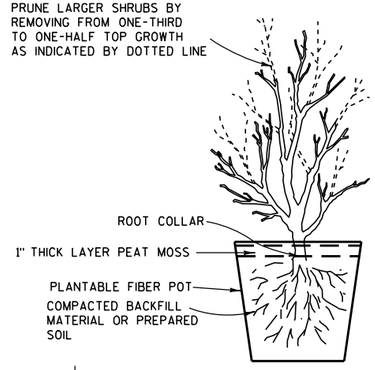
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 A 2-1

GENERAL NOTES

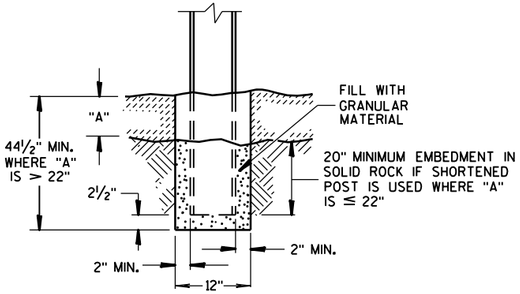
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

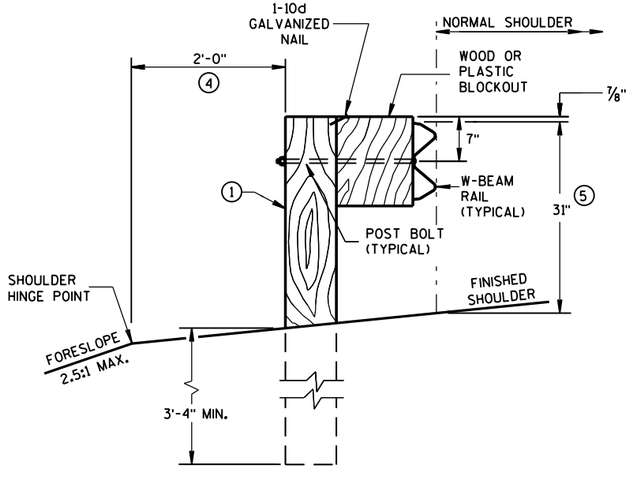
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

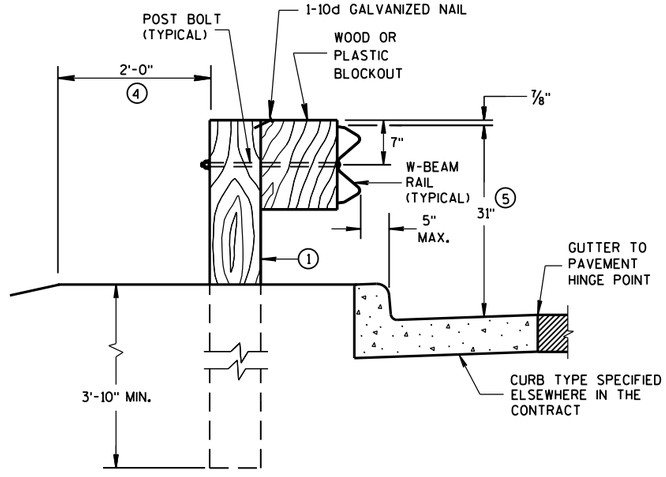


END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



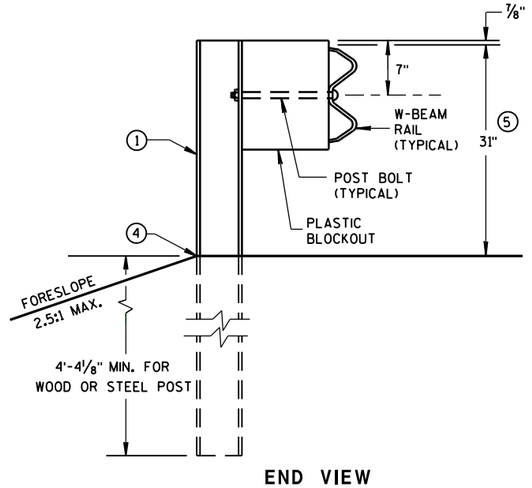
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



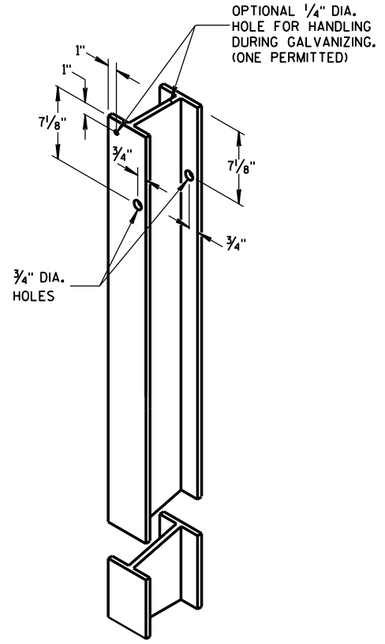
END VIEW

LOCATED ALONG A CURBED ROADWAY

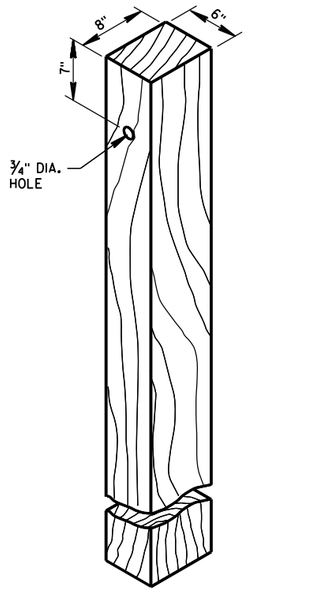


END VIEW

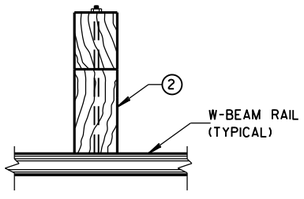
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



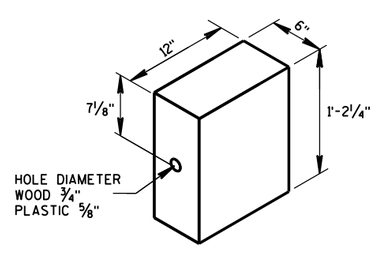
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



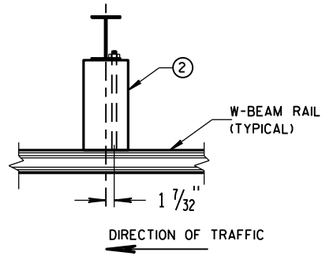
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

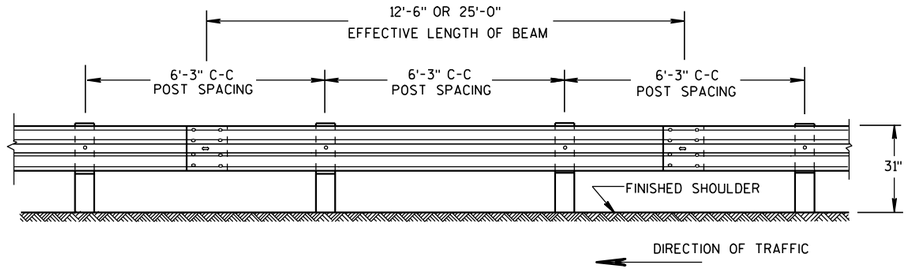


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

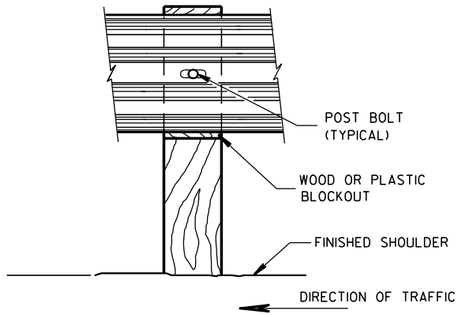
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



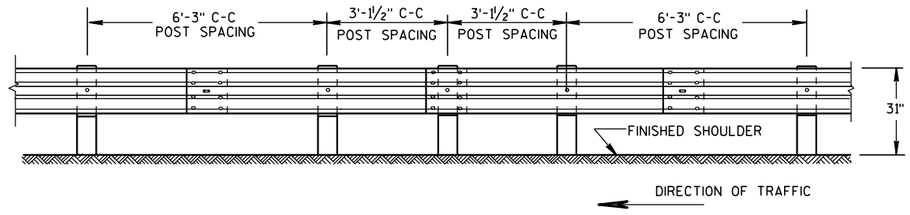
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

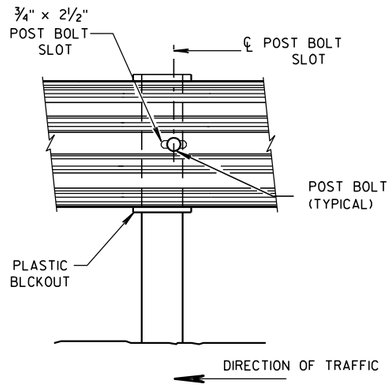
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

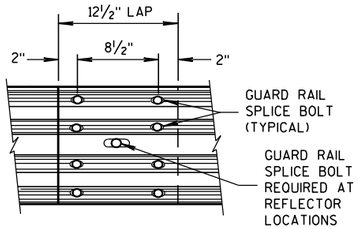


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

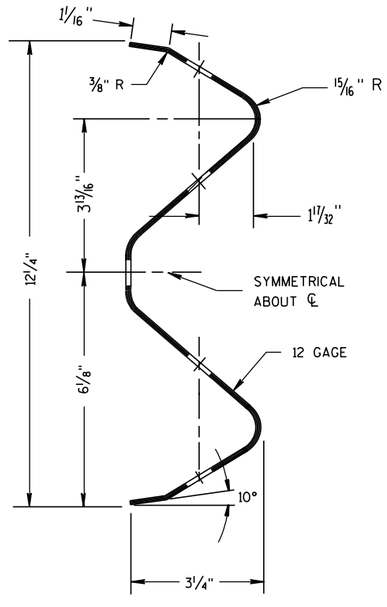


FRONT VIEW AT STEEL POST

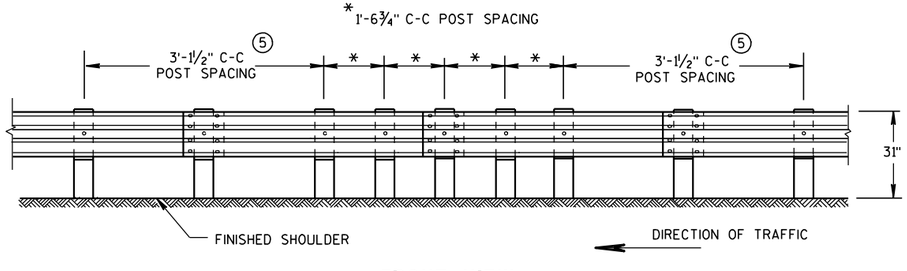


FRONT VIEW

MID-SPAN BEAM SPLICE

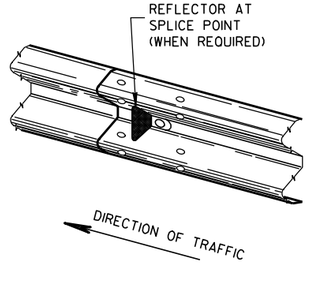


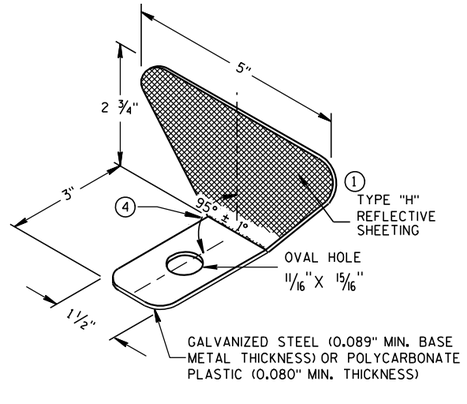
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

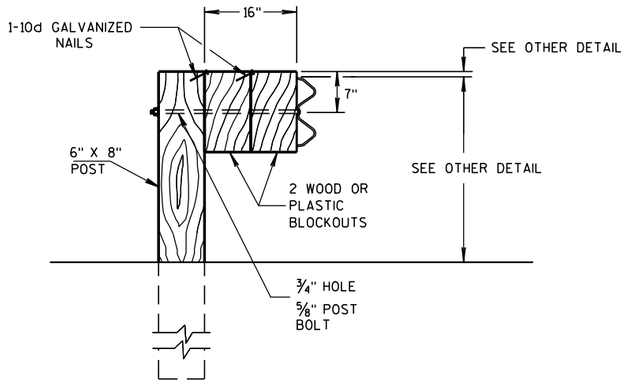
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 1 ③	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ④	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

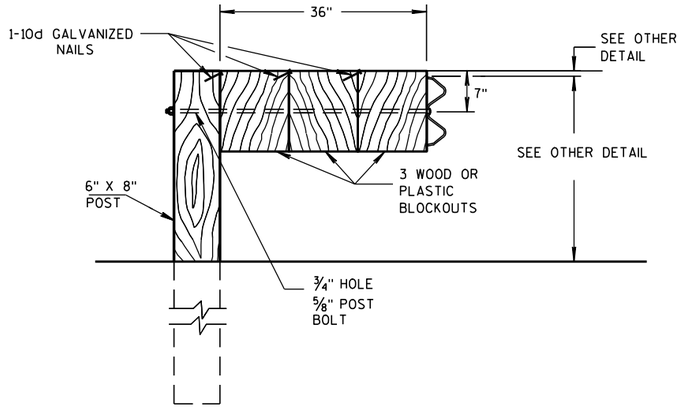
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

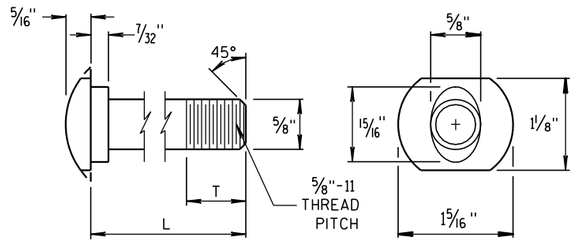


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

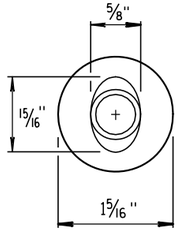
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

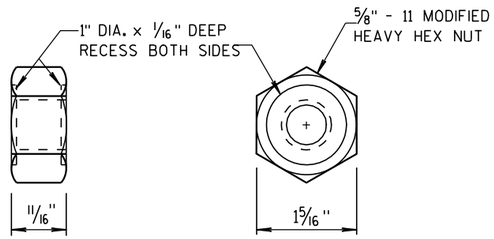


POST BOLT TABLE

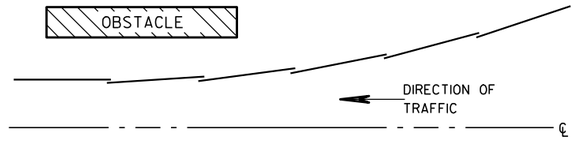
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

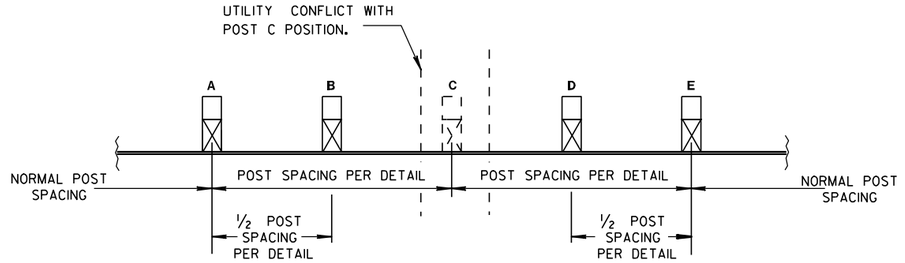


POST BOLT AND RECESS NUT

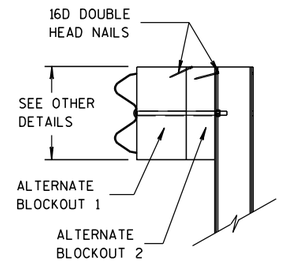


PLAN VIEW

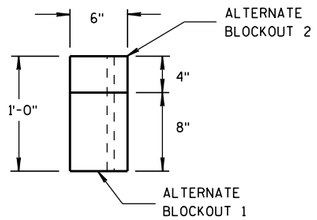
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

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6

S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

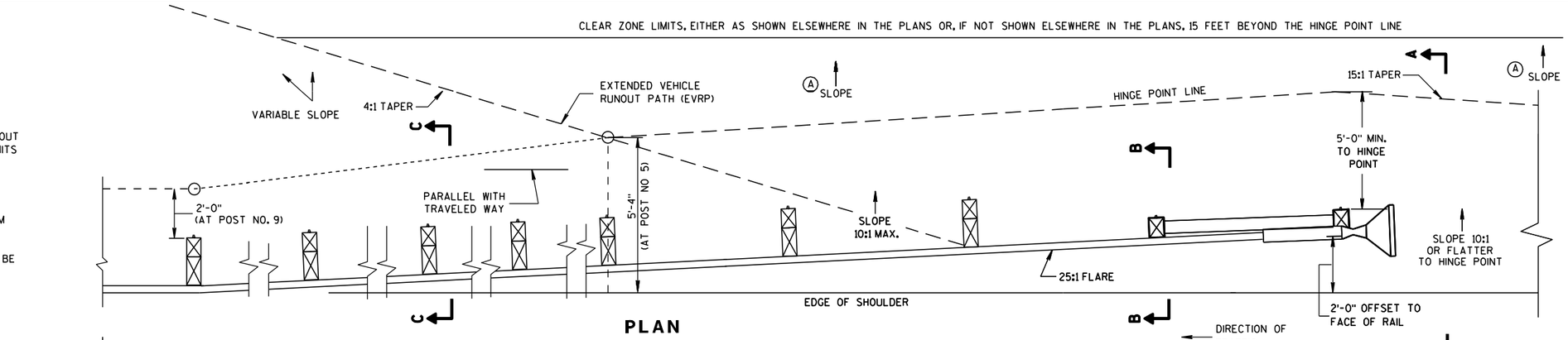
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

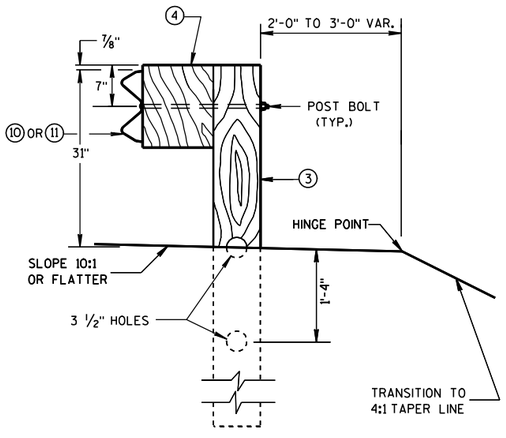
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

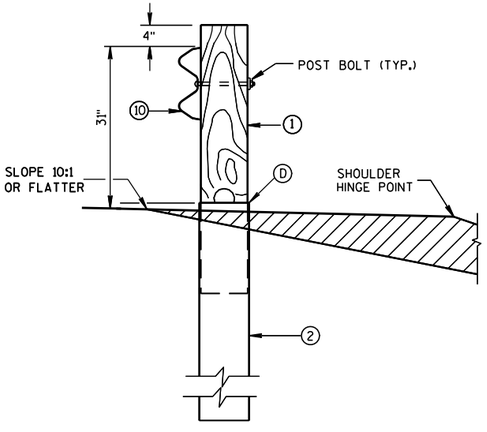
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

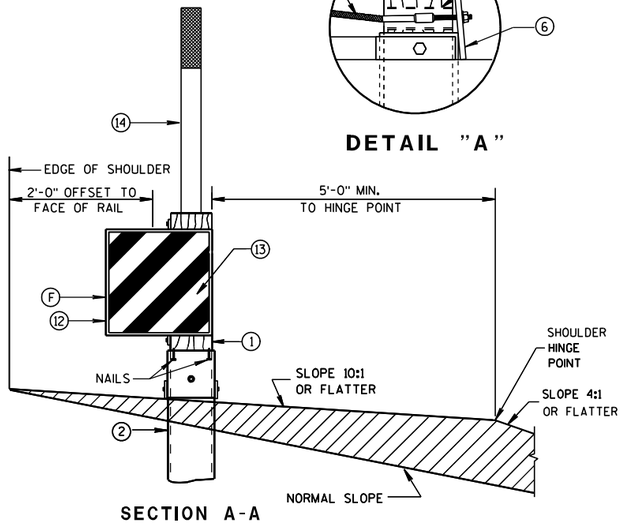




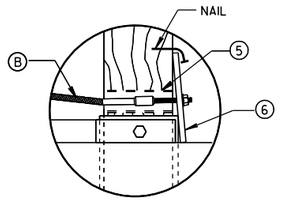
SECTION C-C
TYPICAL AT POST NOS. 3-9



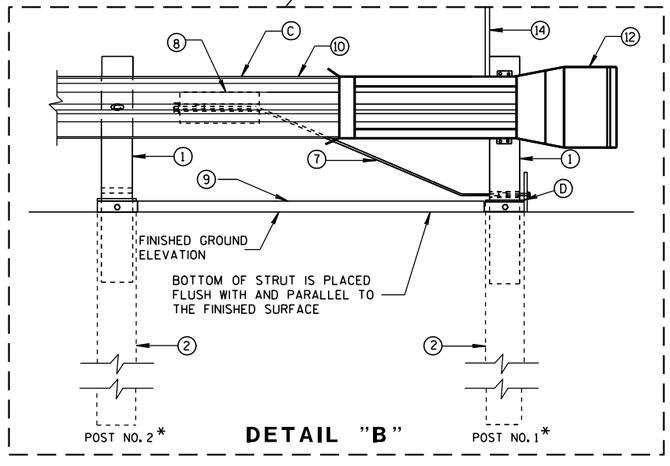
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



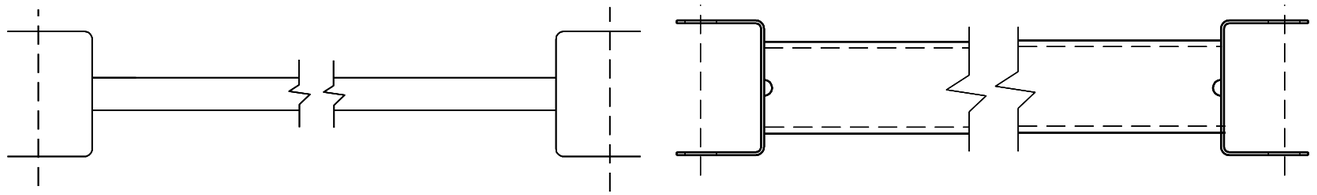
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

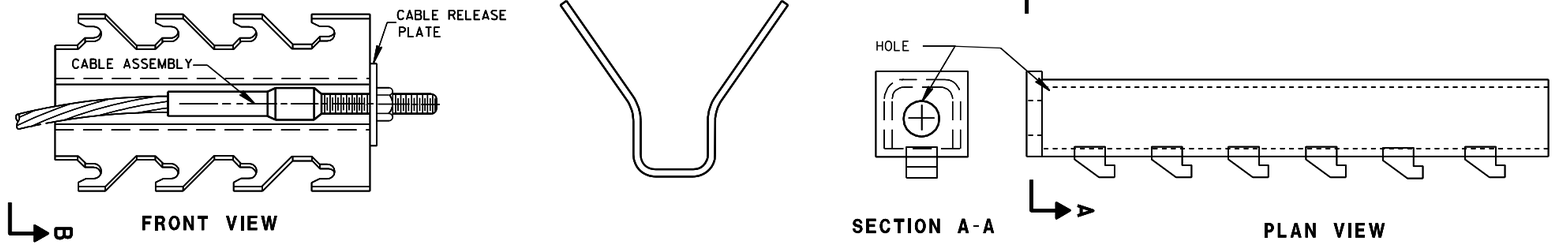
S.D.D. 14 B 44-1a



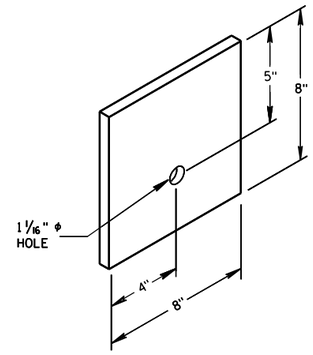
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



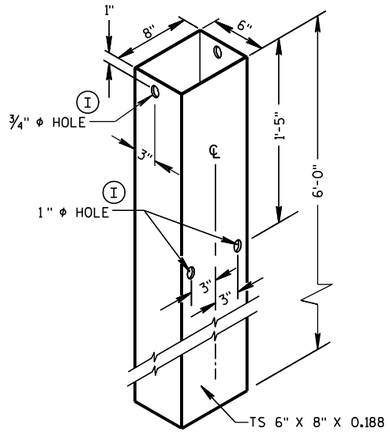
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

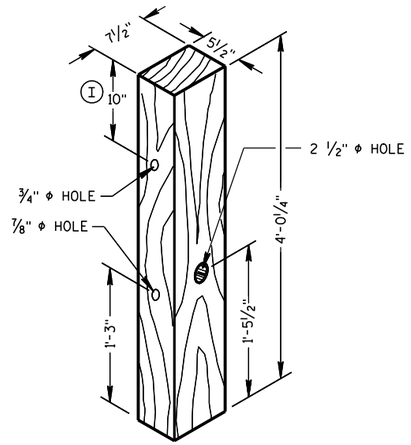
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

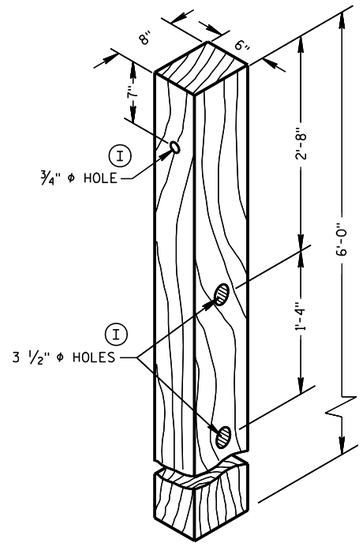


FOUNDATION TUBE (2)



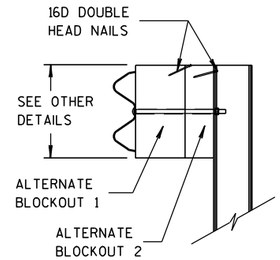
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

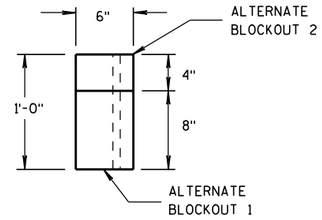


POSTS NUMBER 3-9

WOOD CRT POST (3)

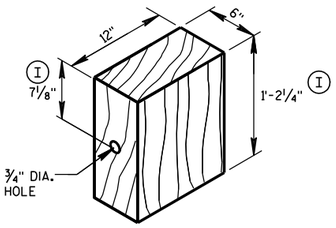


SIDE VIEW



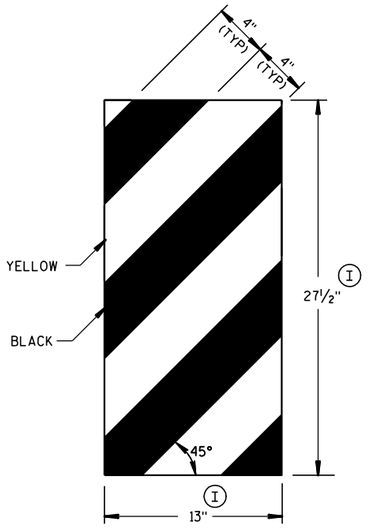
TOP VIEW

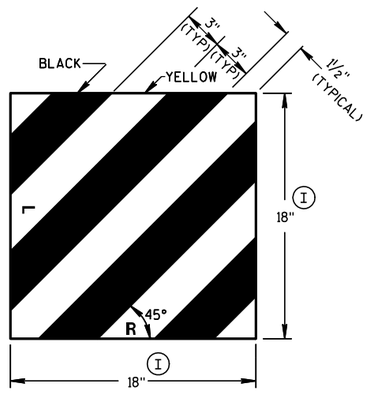
ALTERNATE WOOD BLOCKOUT DETAIL



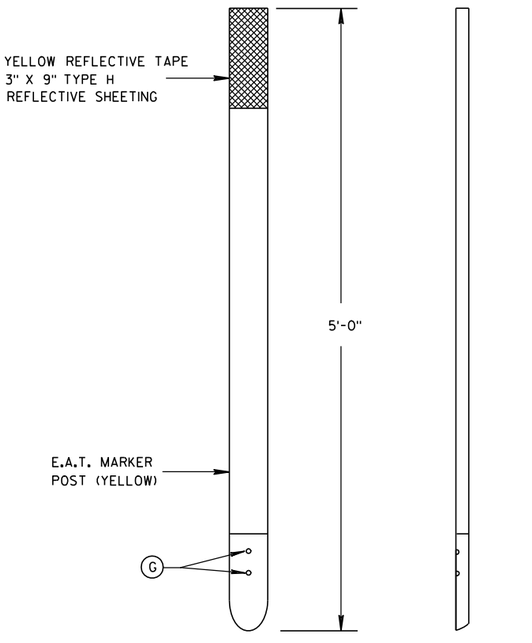
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



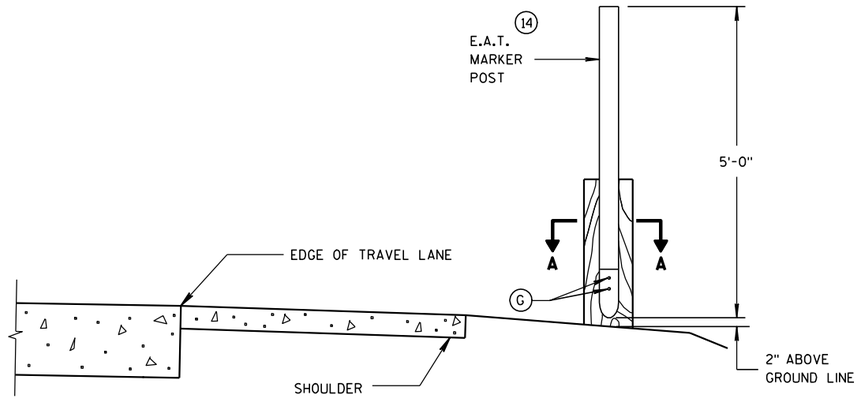


GENERIC REFLECTIVE SHEETING (13) (H)



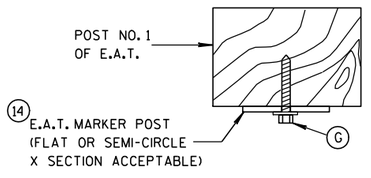
FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

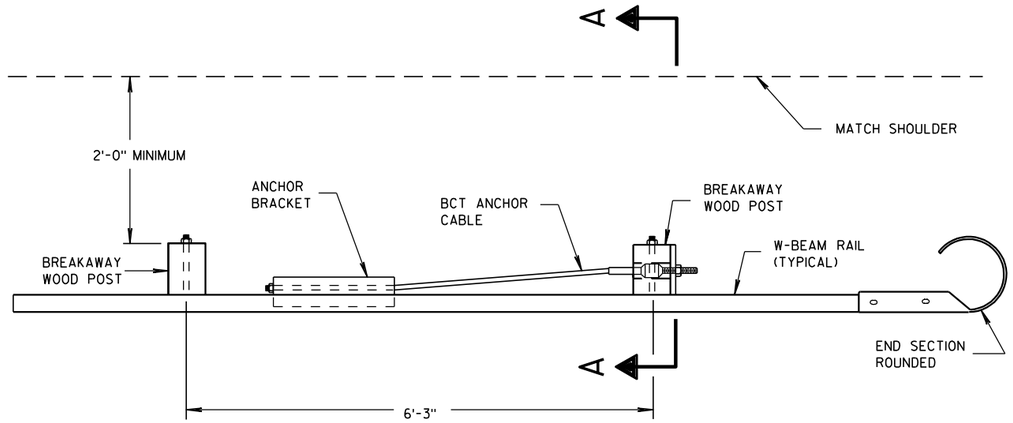
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

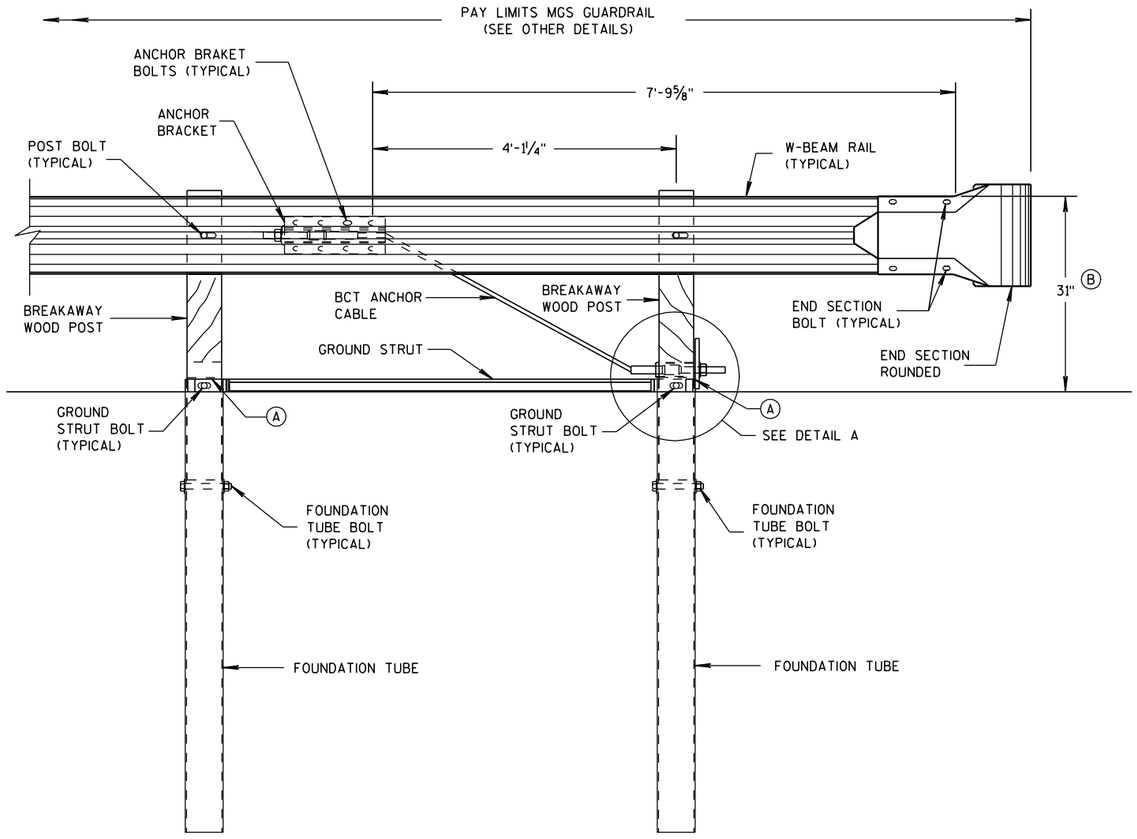
APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-1c

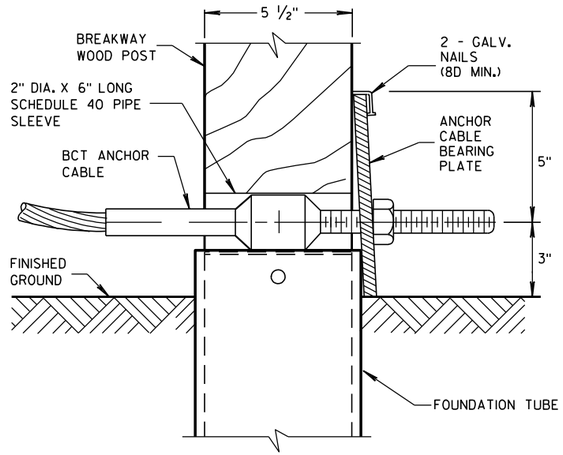


PLAN VIEW



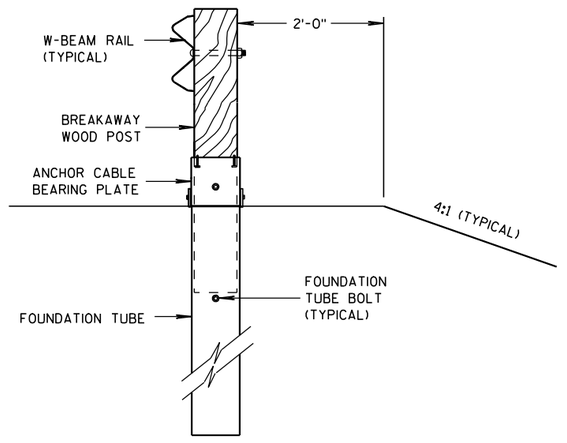
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

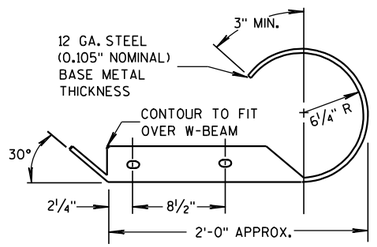
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

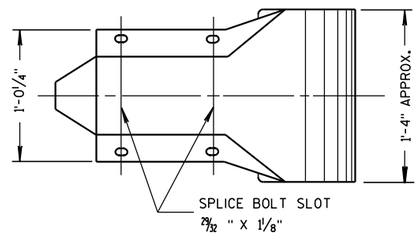
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

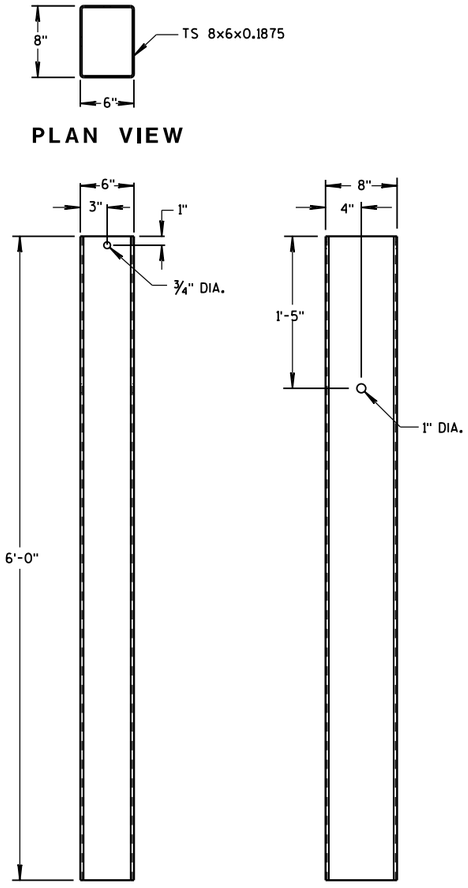
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

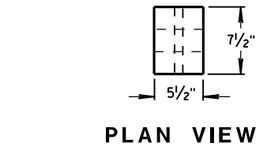
S.D.D. 14 B 47-1a

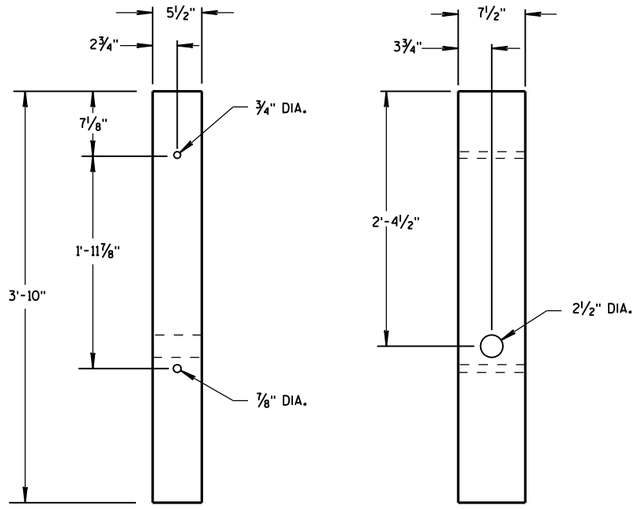
6

S.D.D. 14 B 47-1a



FOUNDATION TUBE



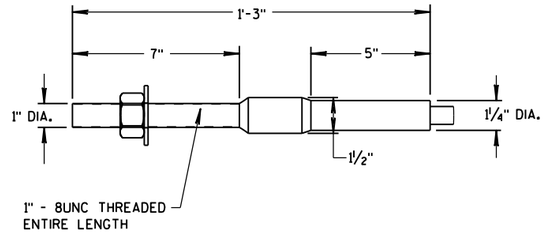


BREAKAWAY WOOD POST

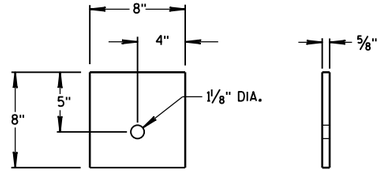
GENERAL NOTES

BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

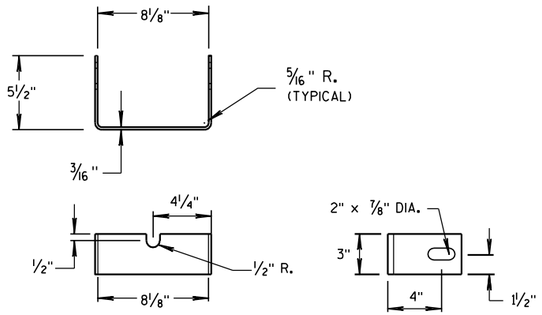
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

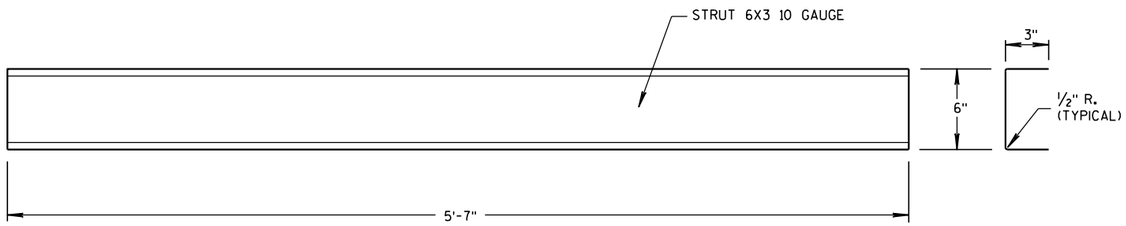
S.D.D. 14 B 47-1b

6

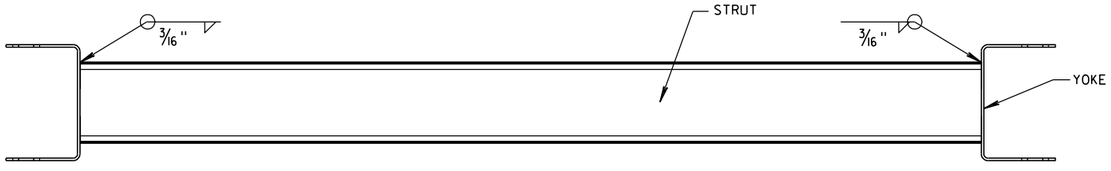
S.D.D. 14 B 47-1b



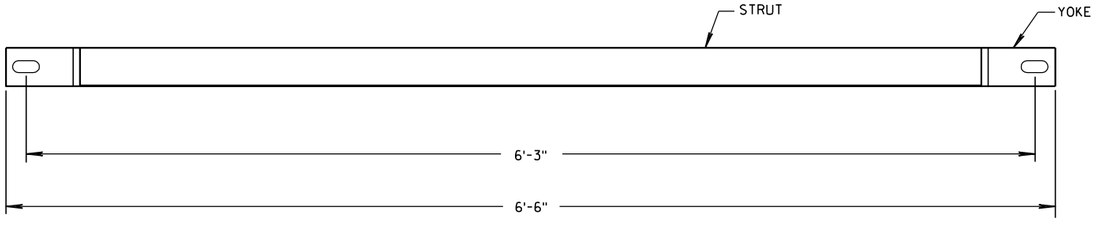
YOKE DETAIL



STRUT DETAIL

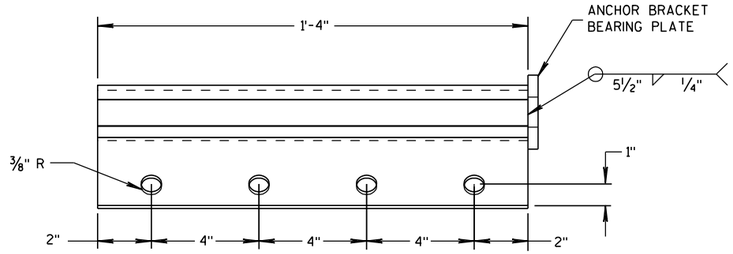


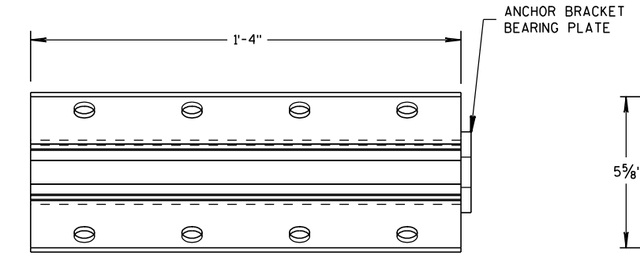
PLAN VIEW

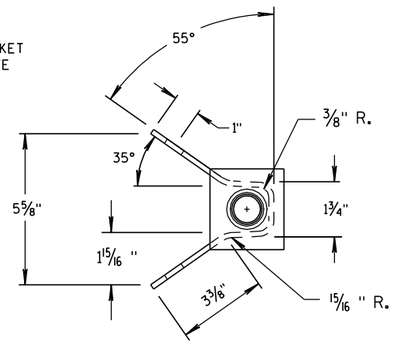


FRONT VIEW

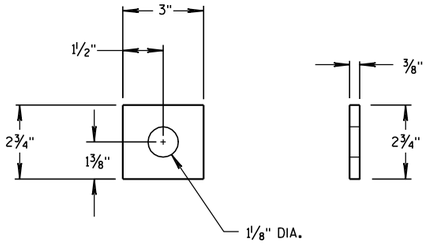
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
5/23/2011 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	

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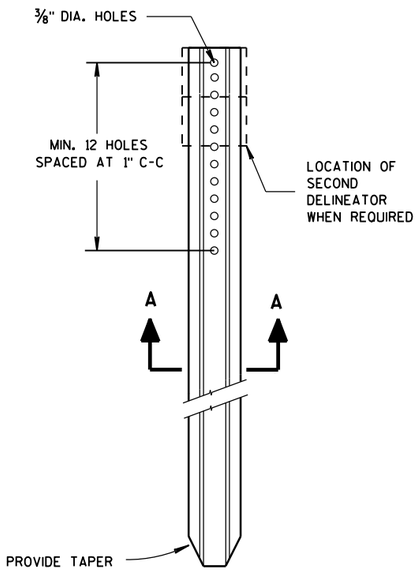
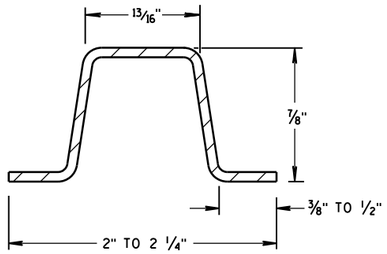
S.D.D. 14 B 47-1c

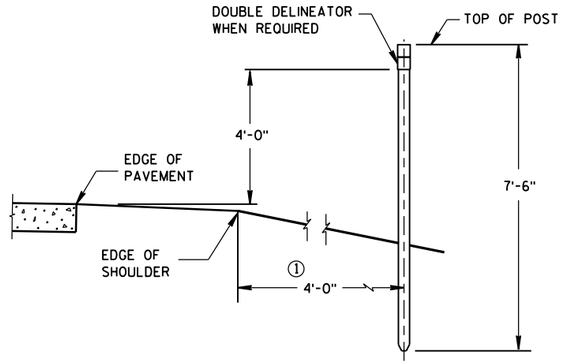


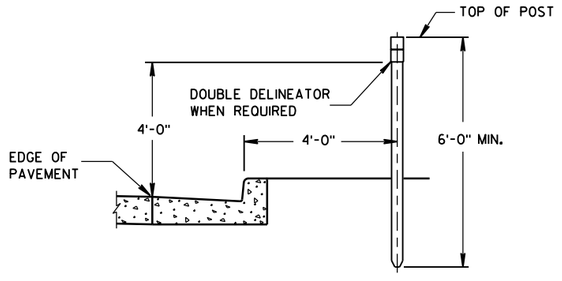
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



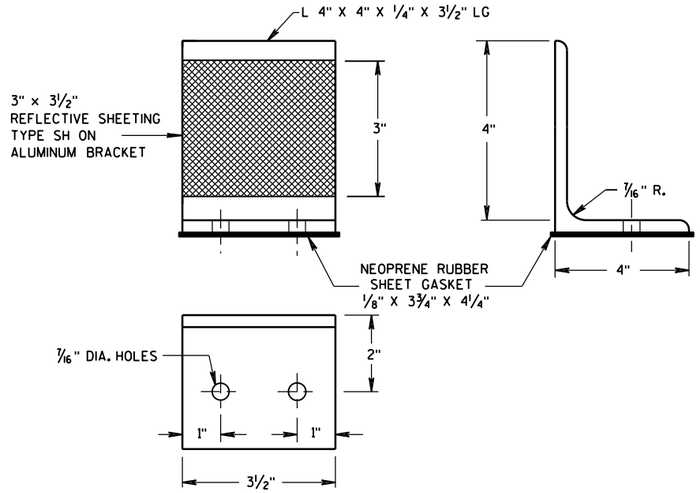


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

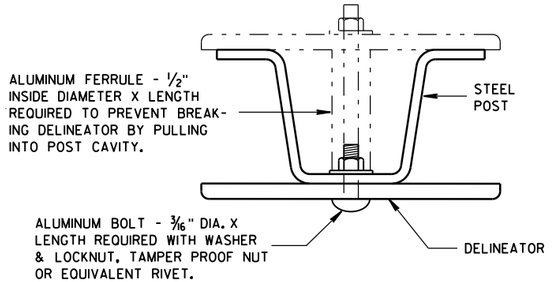
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

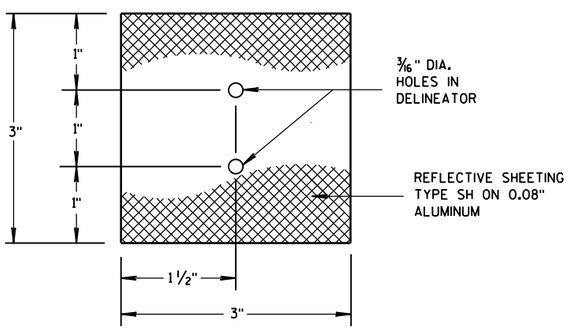
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



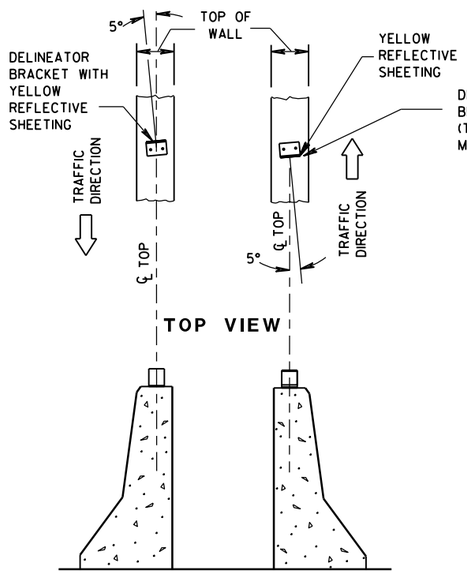
DELINEATOR BRACKET



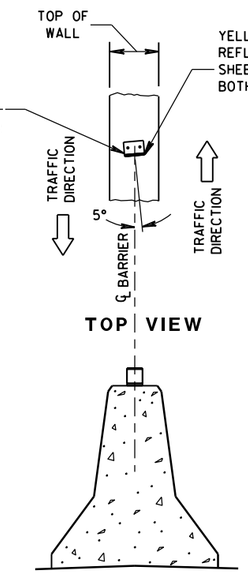
MOUNTING DETAIL FOR DELINEATOR



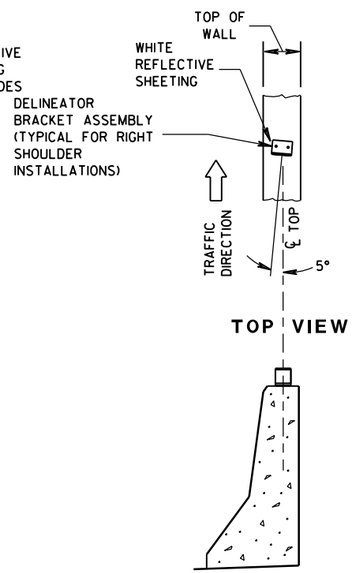
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

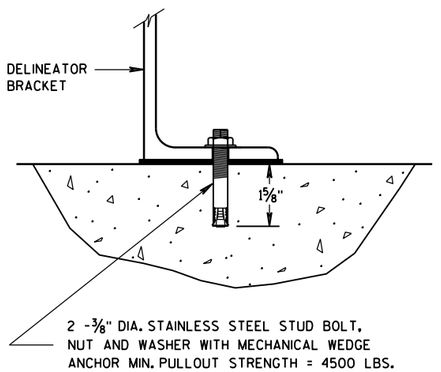


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS

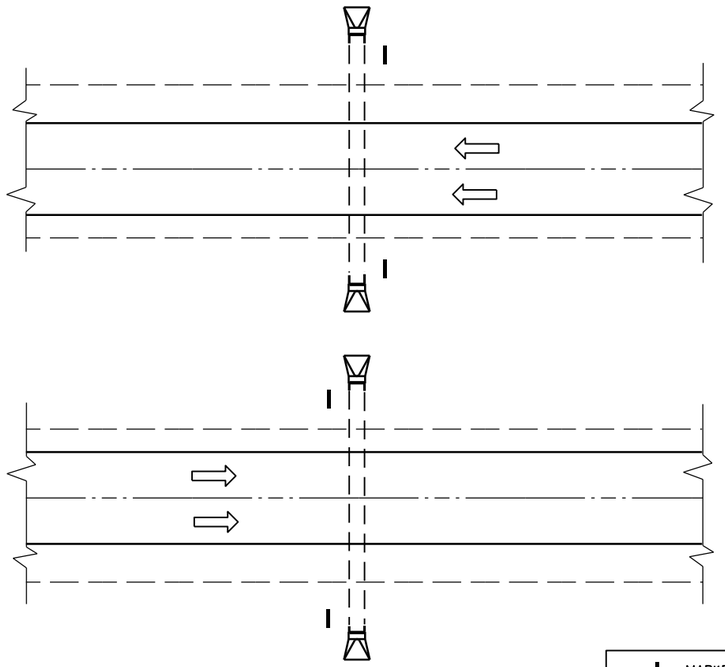


DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

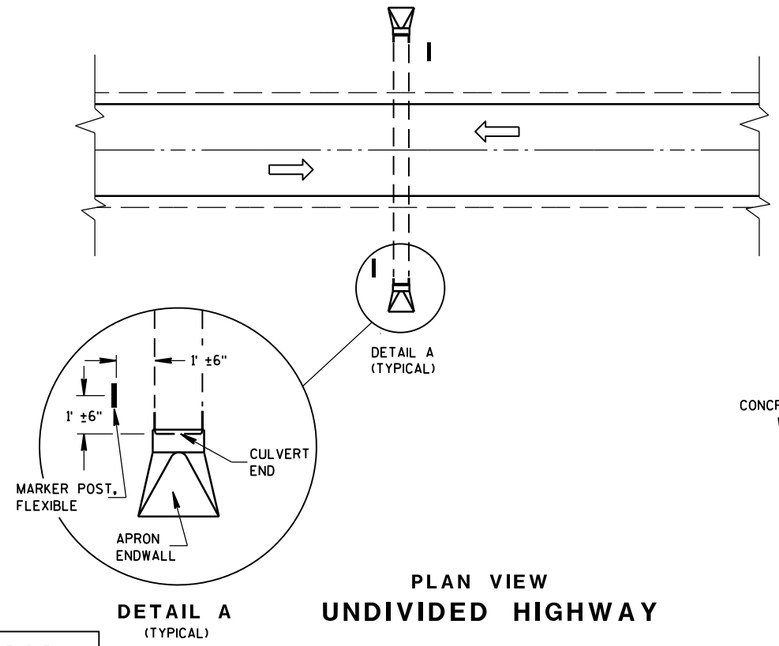
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

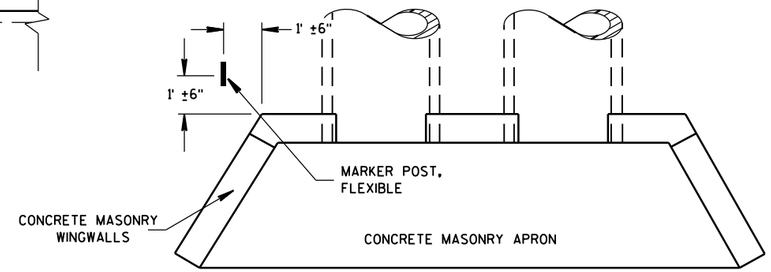
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

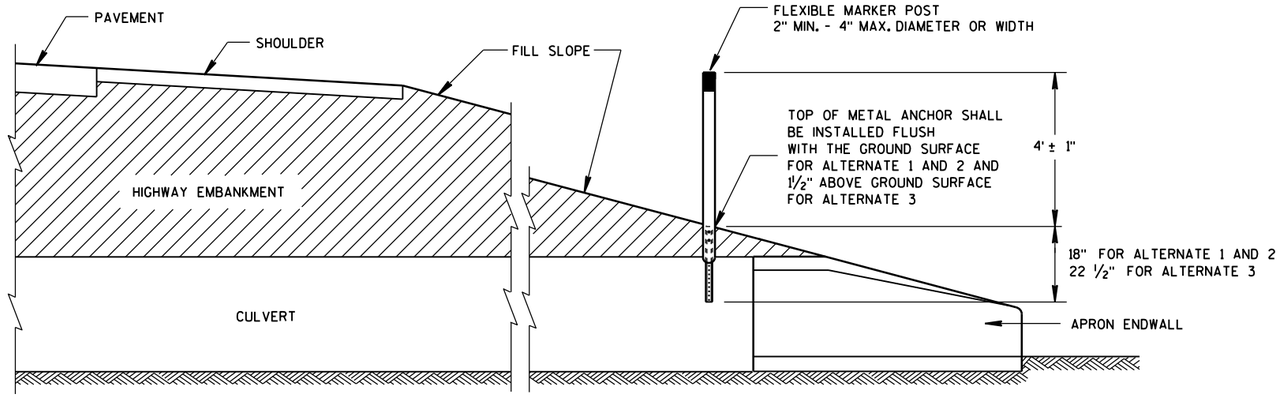
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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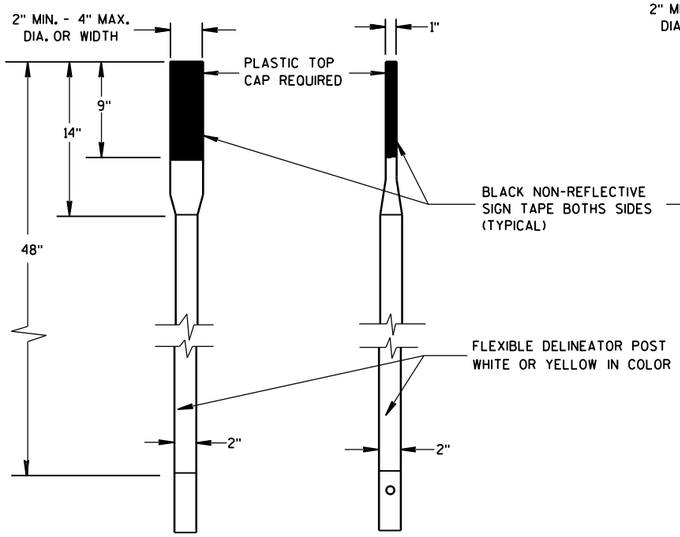
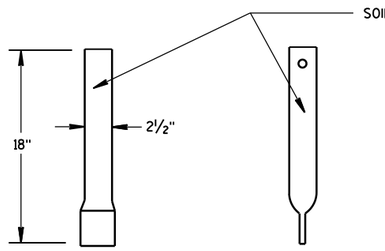
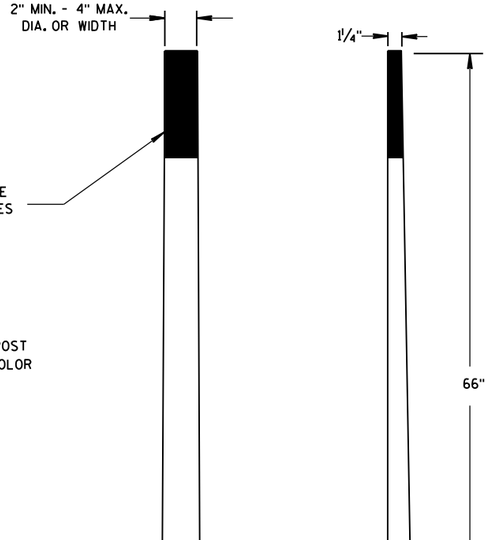
S.D.D. 15 A 3-2a





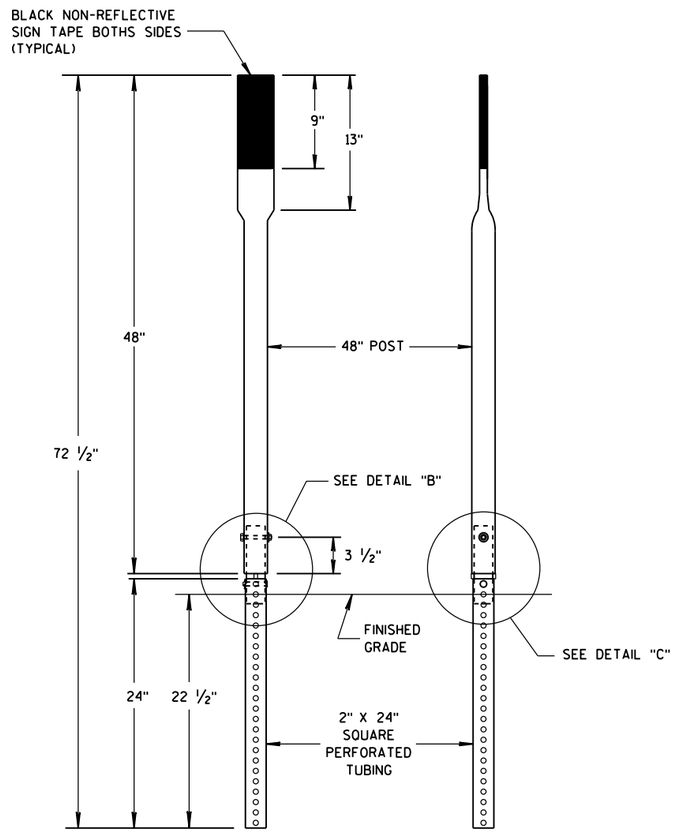
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

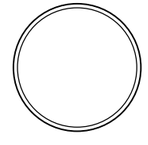
ALTERNATE 2



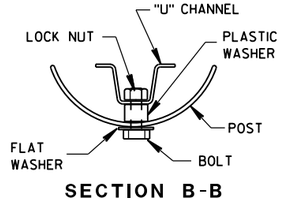
FRONT VIEW SIDE VIEW

ALTERNATE 3

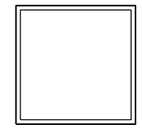
FLEXIBLE MARKER POSTS



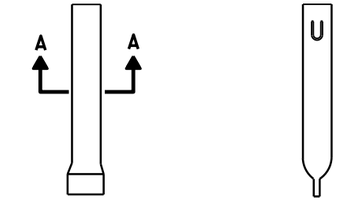
SECTION A-A



SECTION B-B

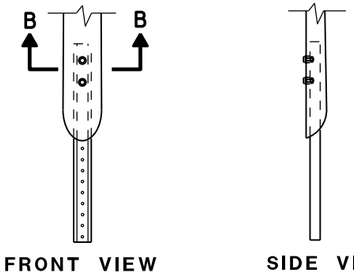


SECTION C-C



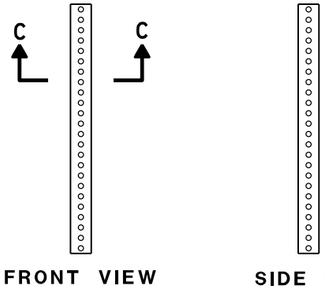
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

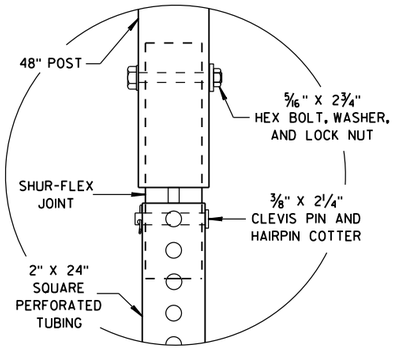
ALTERNATE 2



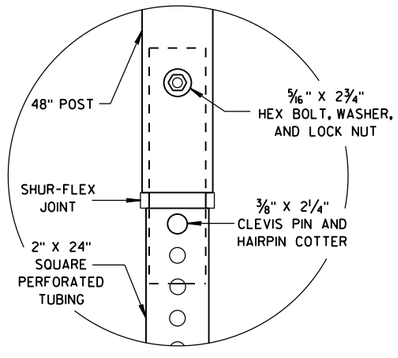
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 3-2b

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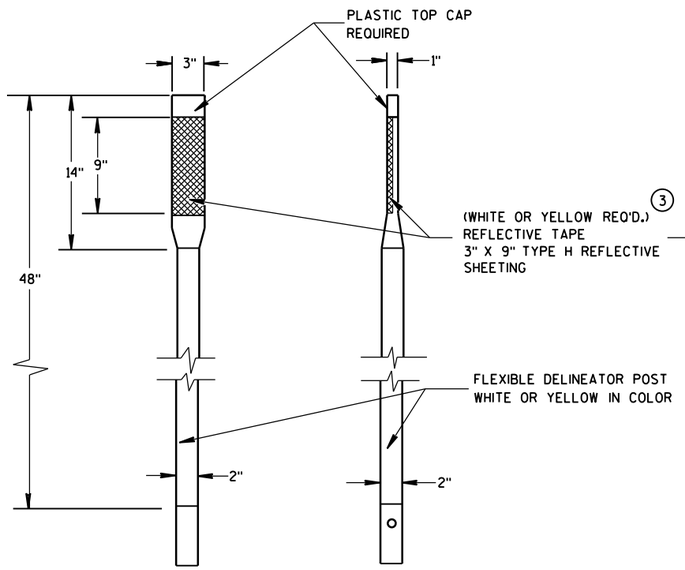
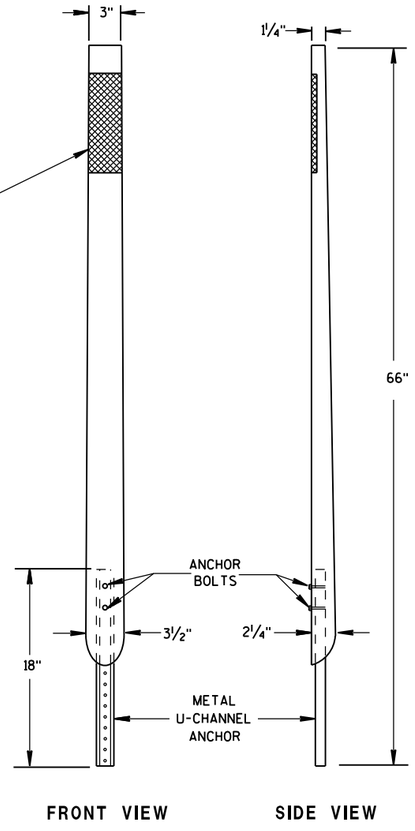
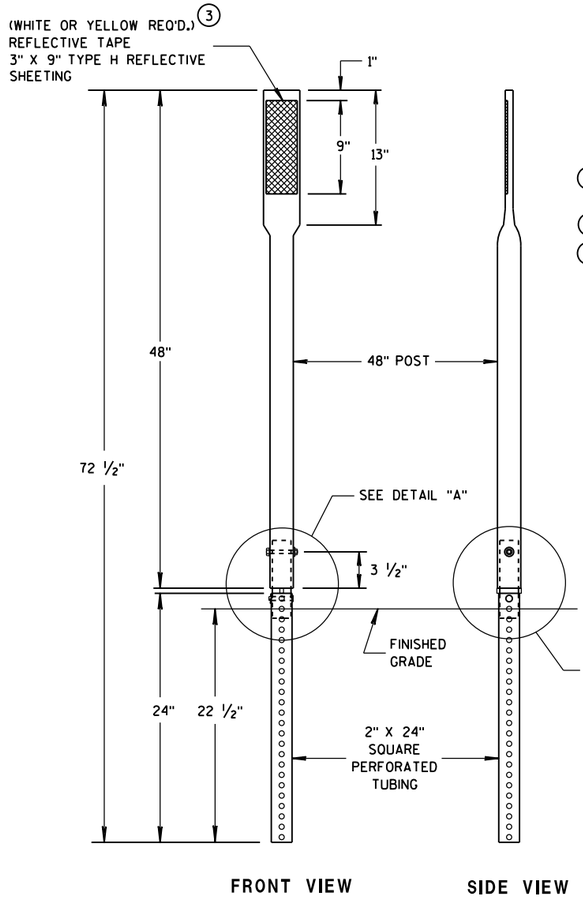
S.D.D. 15 A 3-2b



ALTERNATE 1



ALTERNATE 2



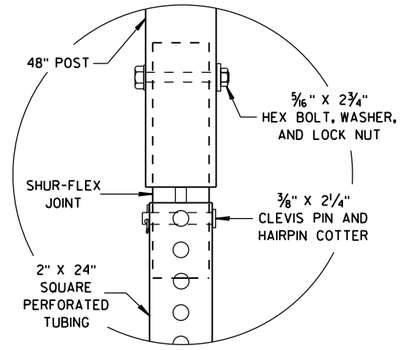
ALTERNATE 3

FLEXIBLE DELINEATOR POSTS

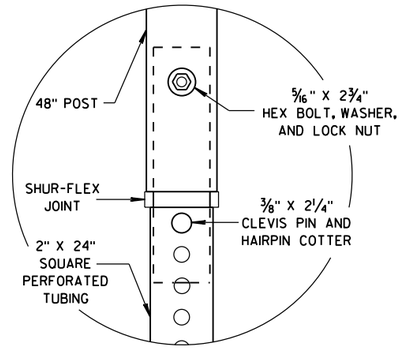
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDATRD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

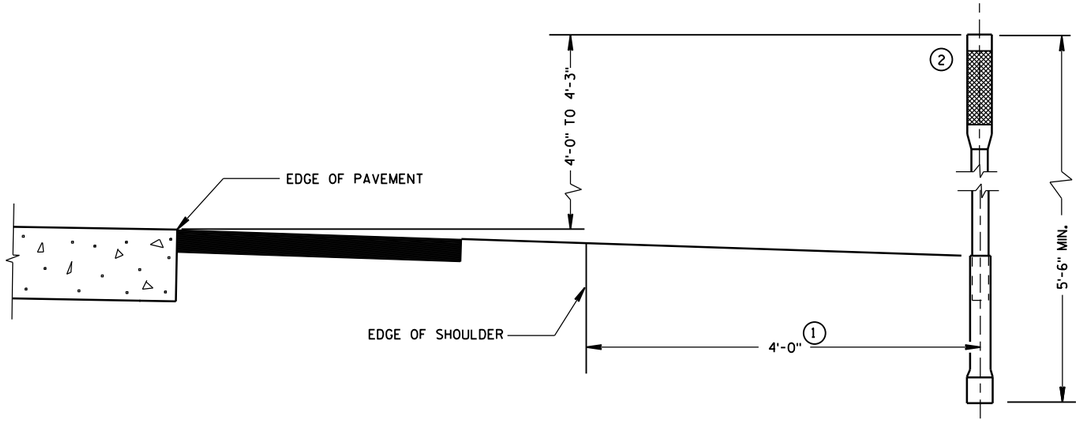
1. DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
2. EITHER ALTERNATE NO. 1, NO. 2 OR NO. 3 MAY BE FURNISHED.
3. AS PER SECTION 637.2.2.2. OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

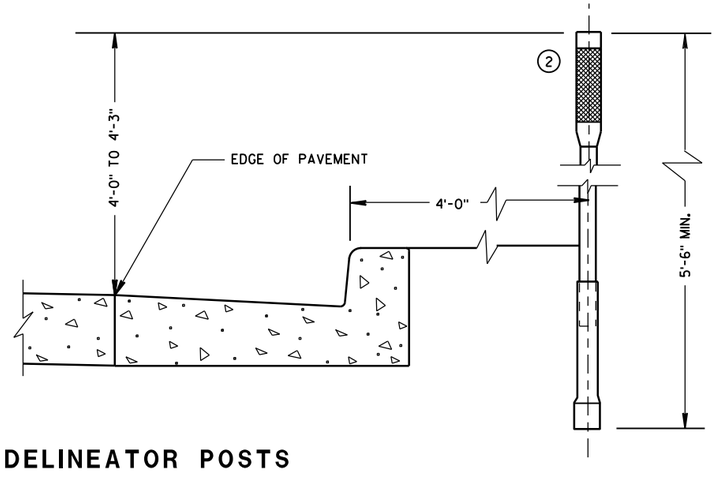


DETAIL A



DETAIL B





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-26-2012 DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 4-2

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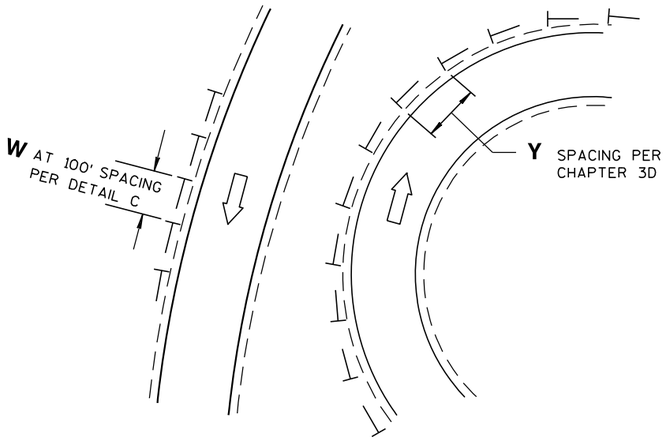
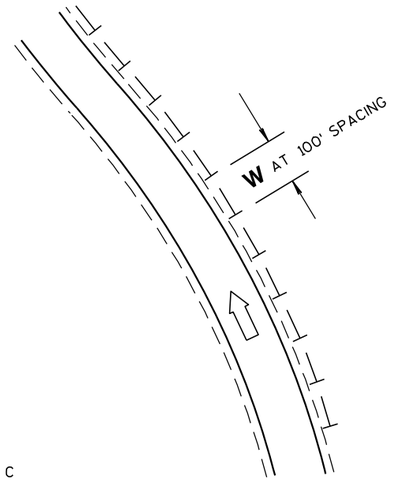
S.D.D. 15 A 4-2

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



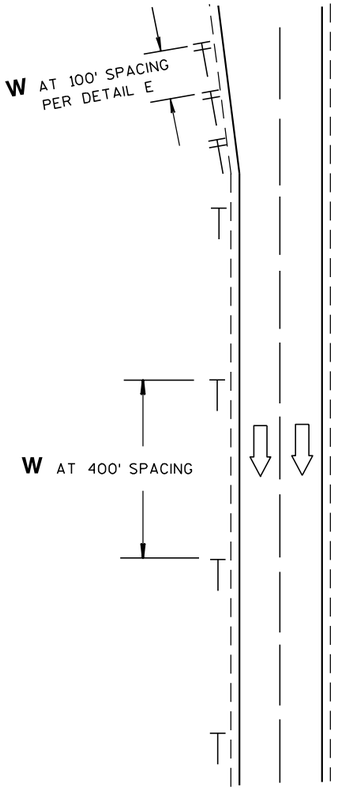
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



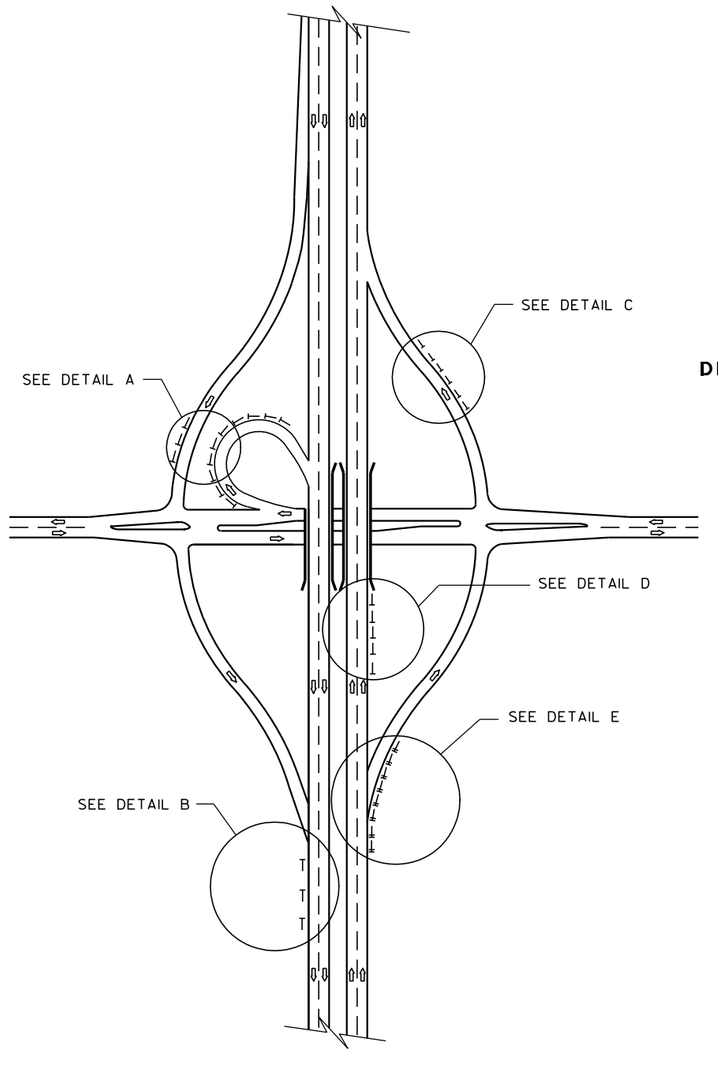
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

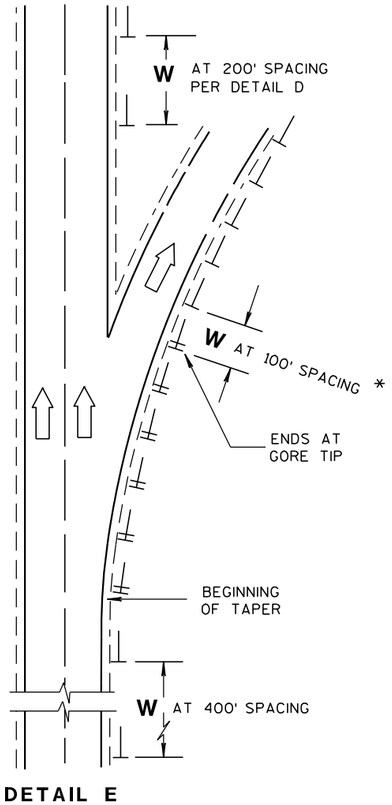
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



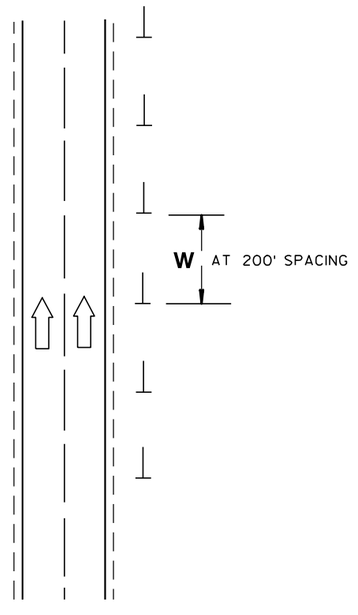
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/5/09 — DATE
/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 A 6-2

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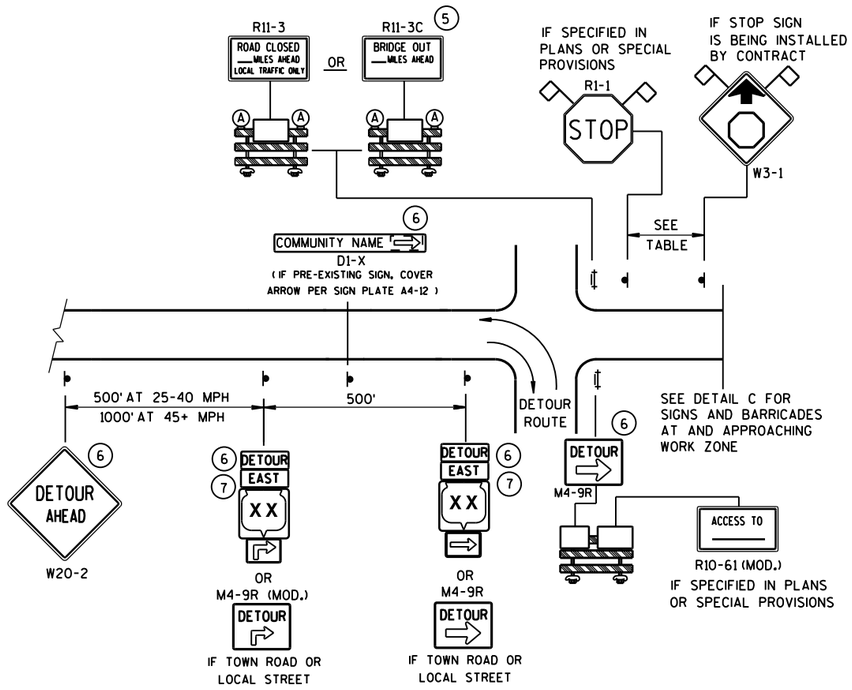
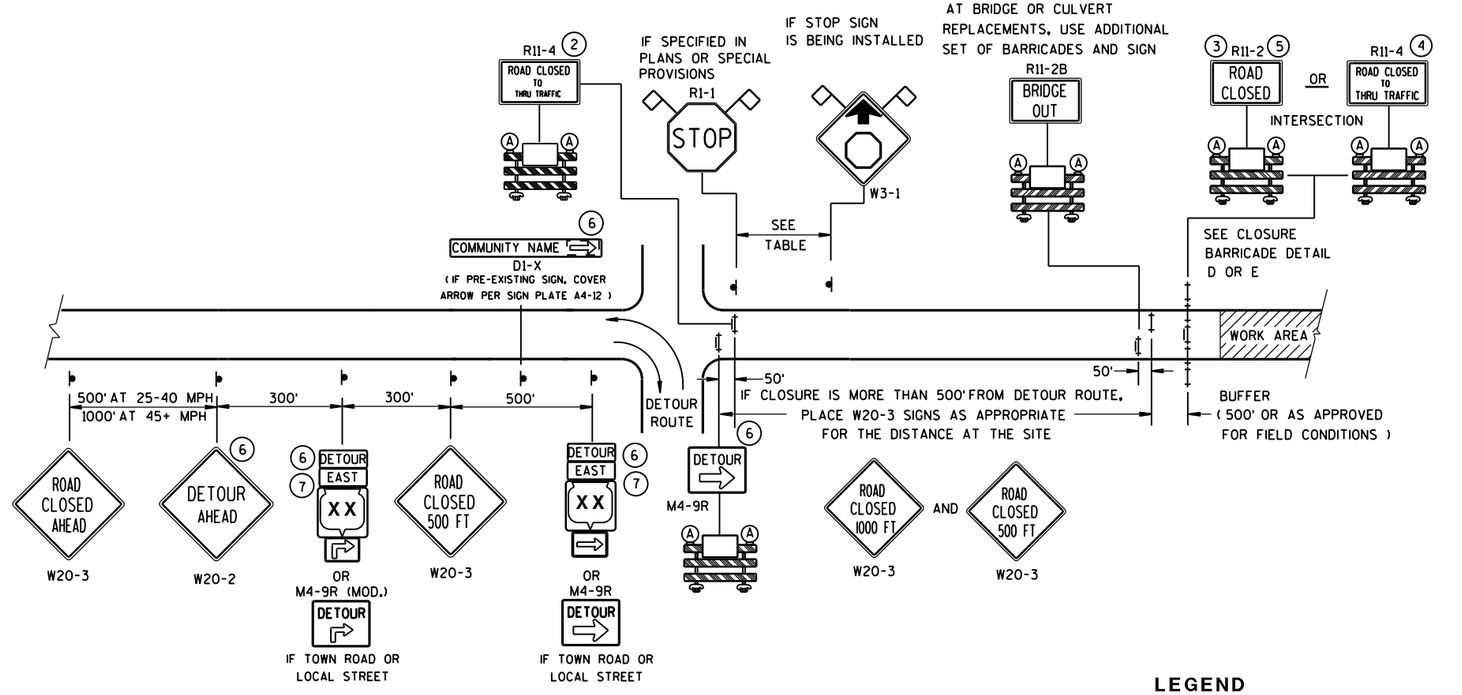
S.D.D. 15 A 6-2



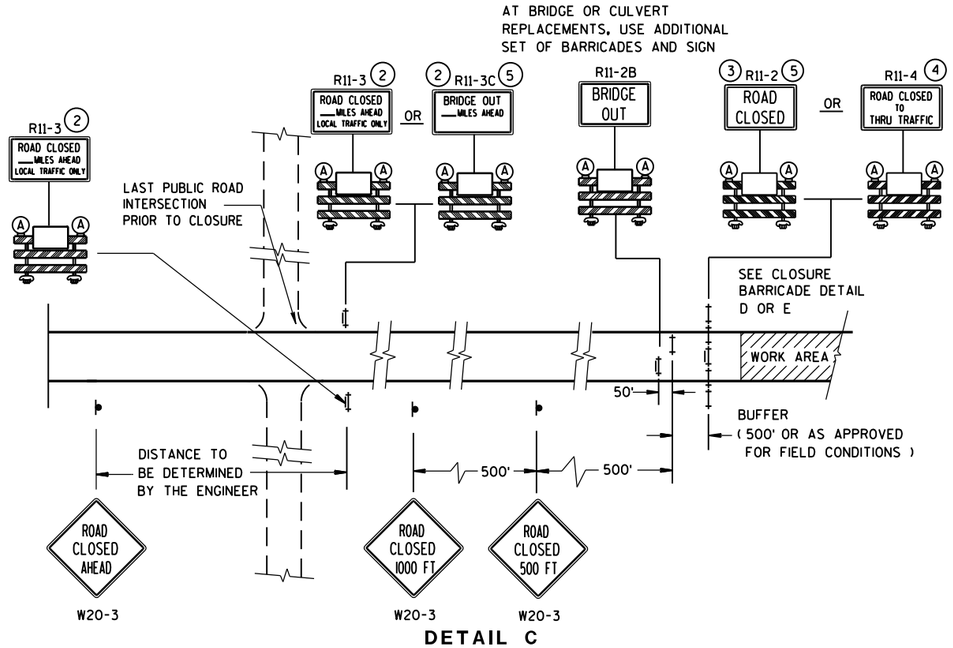
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

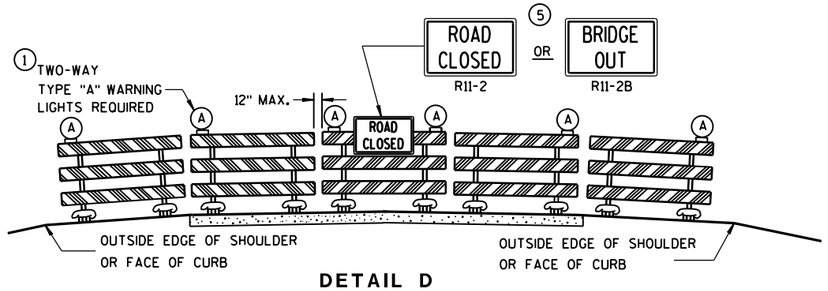
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

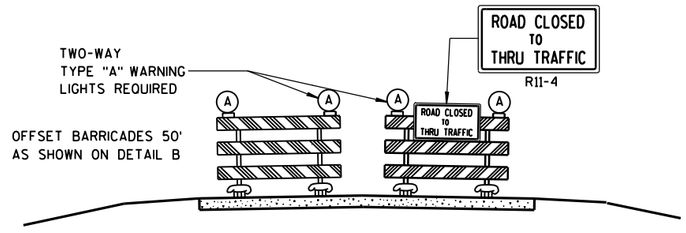
6
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

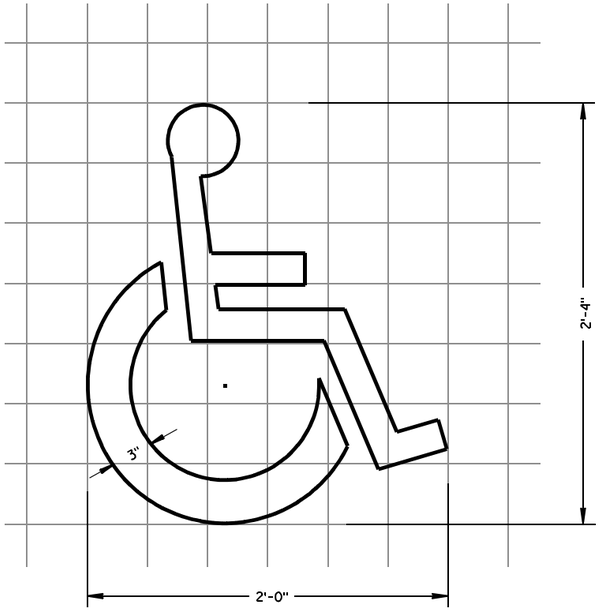
S.D.D. 15 C 2-5b

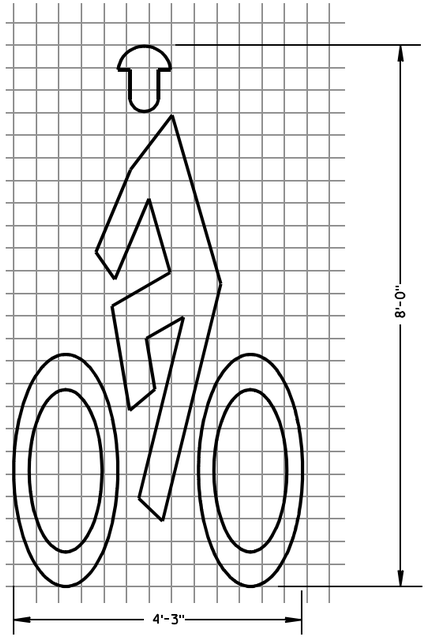
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

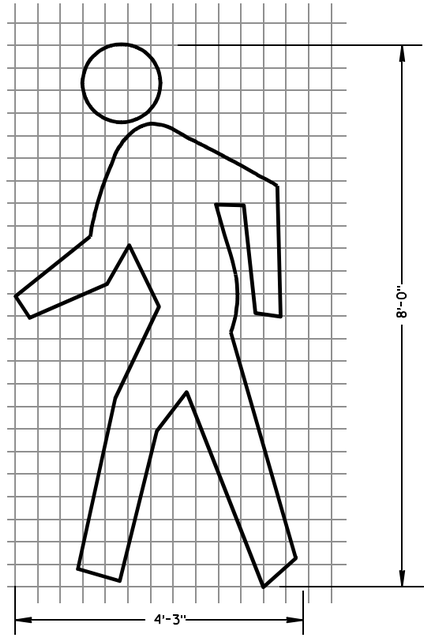
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

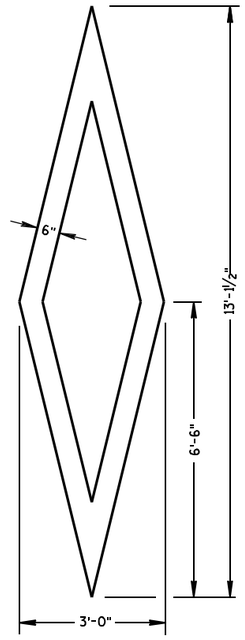




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

/S/ Thomas N Nathan
STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12a

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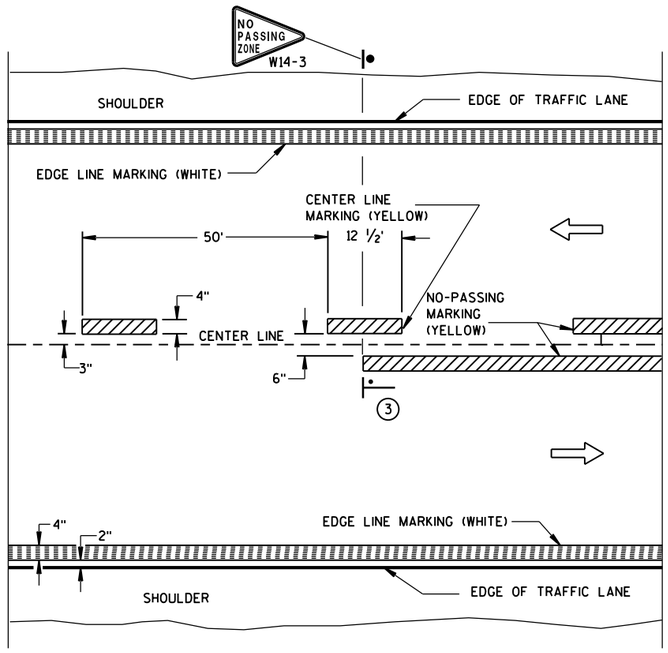
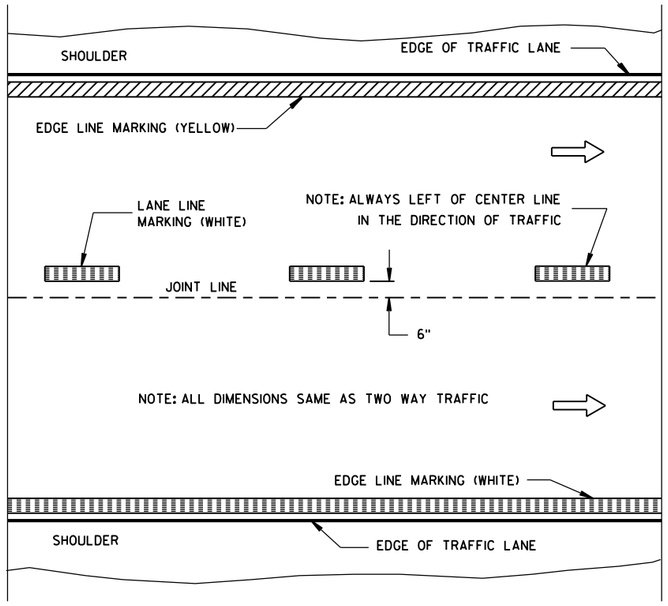
S.D.D. 15 C 7-12a

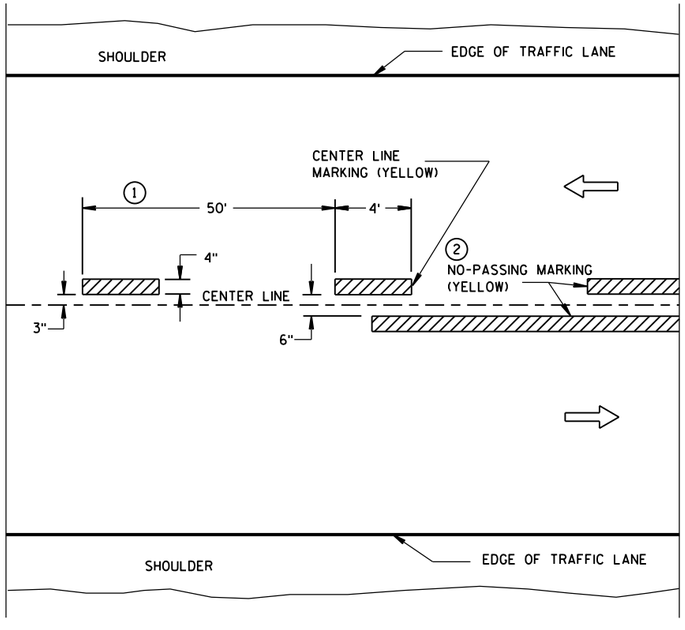


TWO WAY TRAFFIC

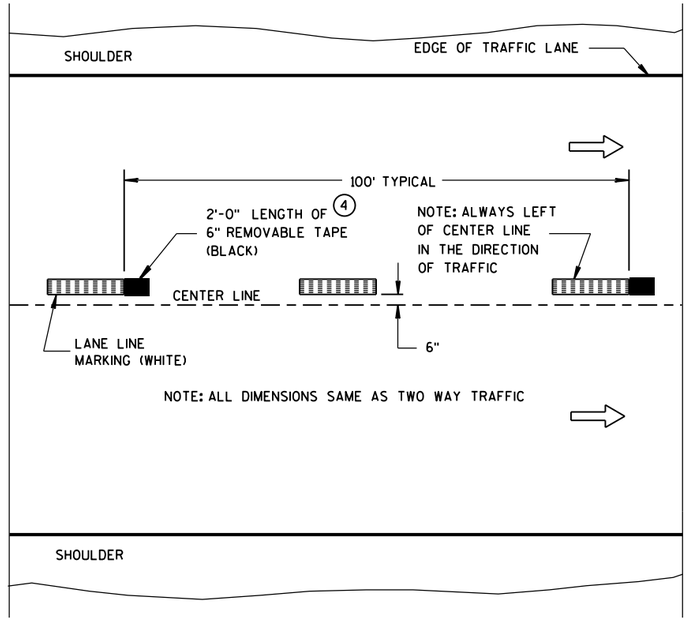


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

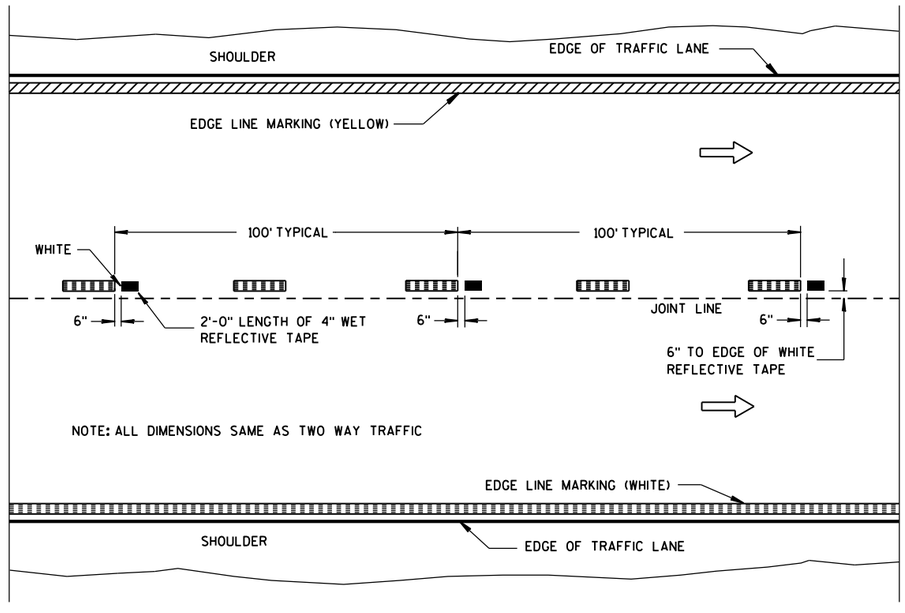
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 8-16a

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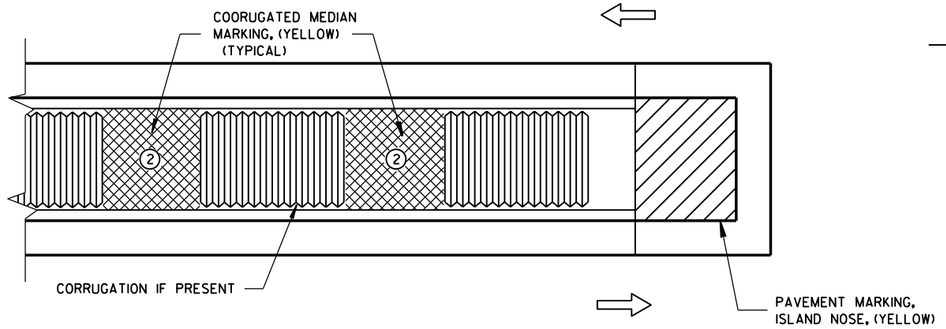
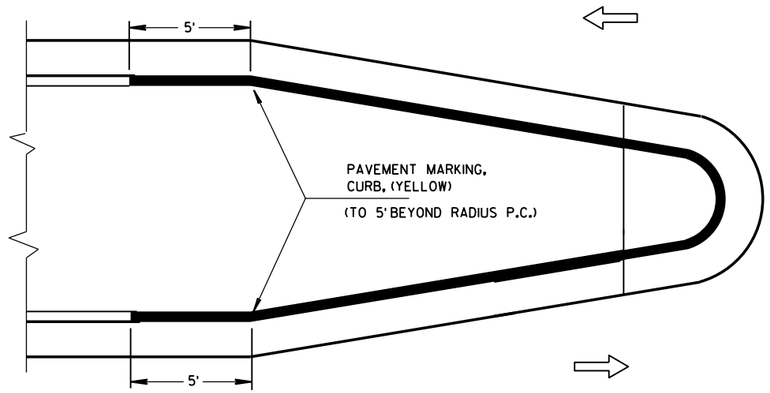
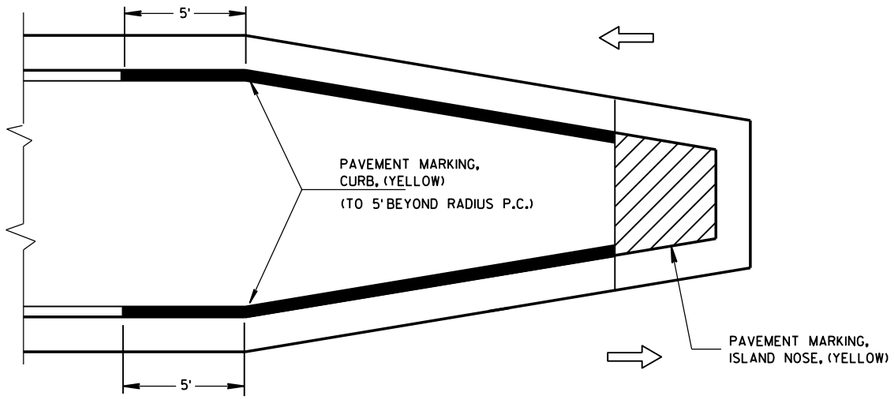
S.D.D. 15 C 8-16a



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

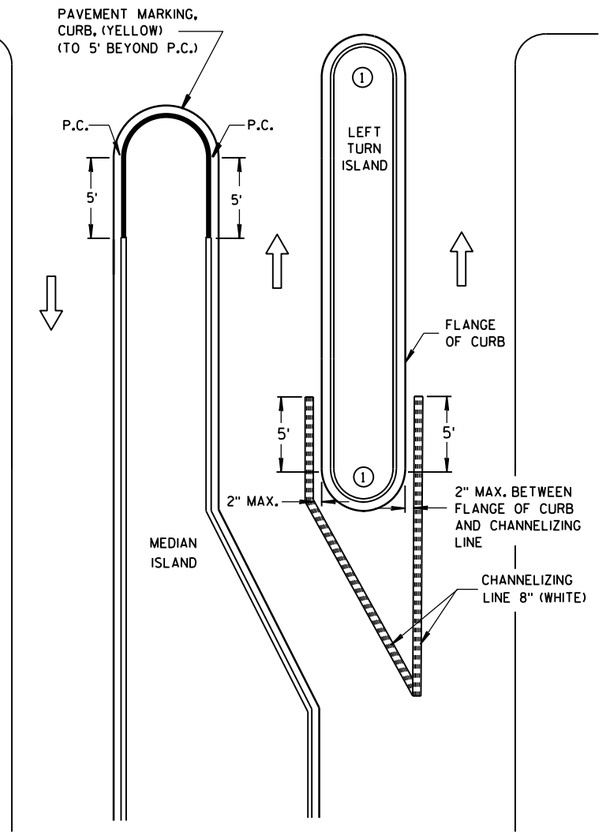


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

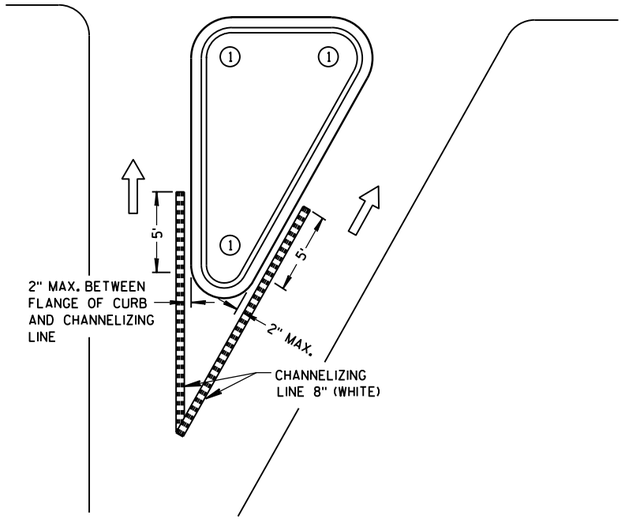


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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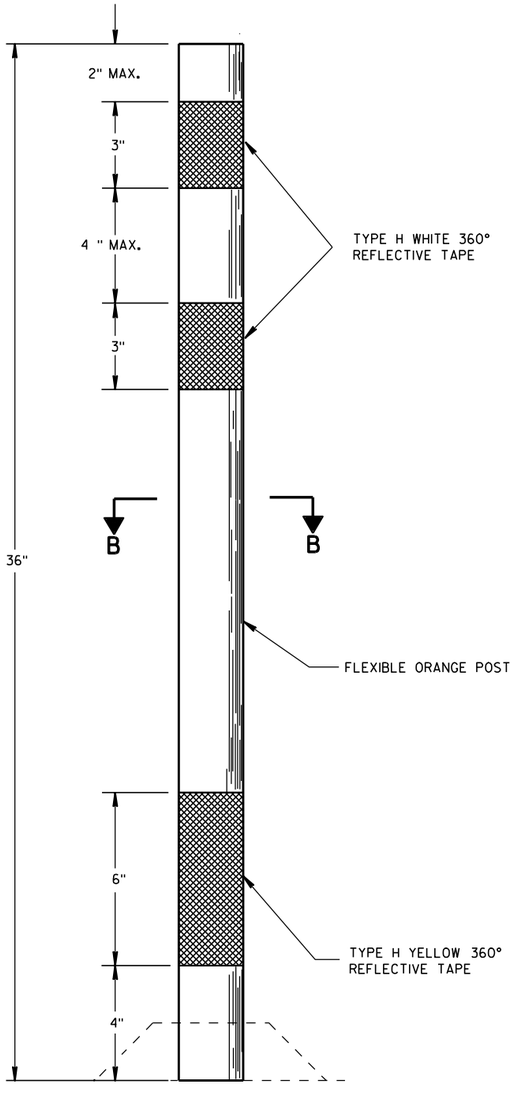
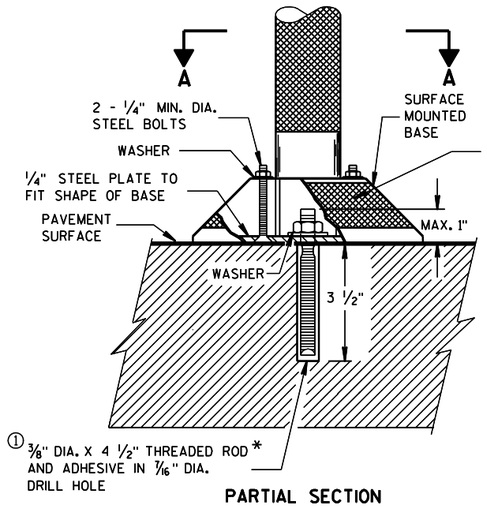
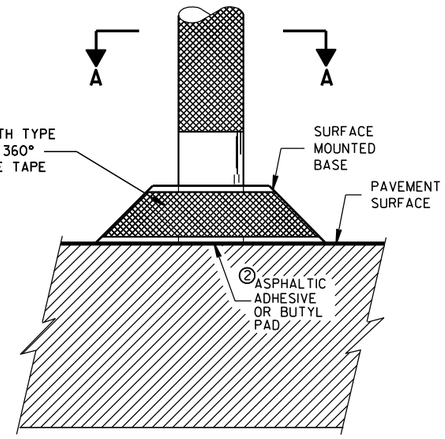
S.D.D. 15 C 8-16f



FLEXIBLE TUBULAR MARKER POST



PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT

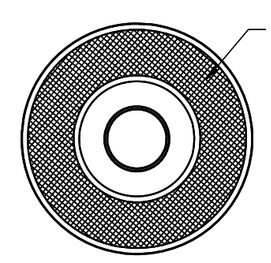
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

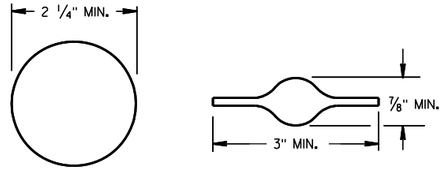
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



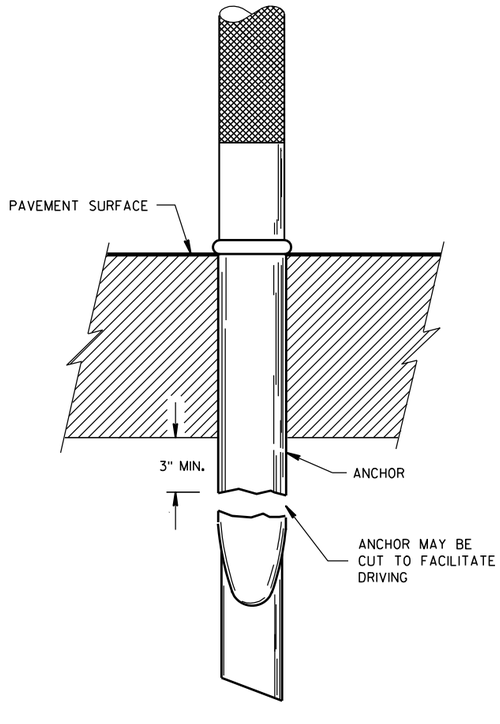
SECTION A-A

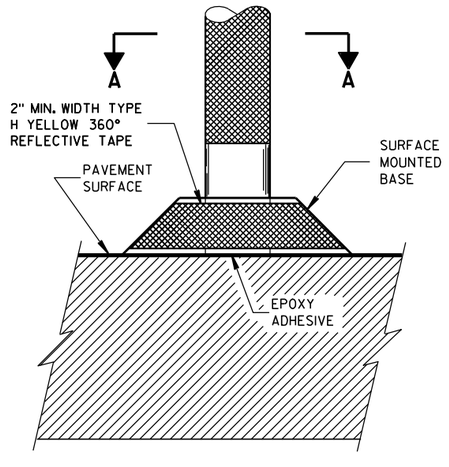
SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

FHWA

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S.D.D. 15 C 11-5

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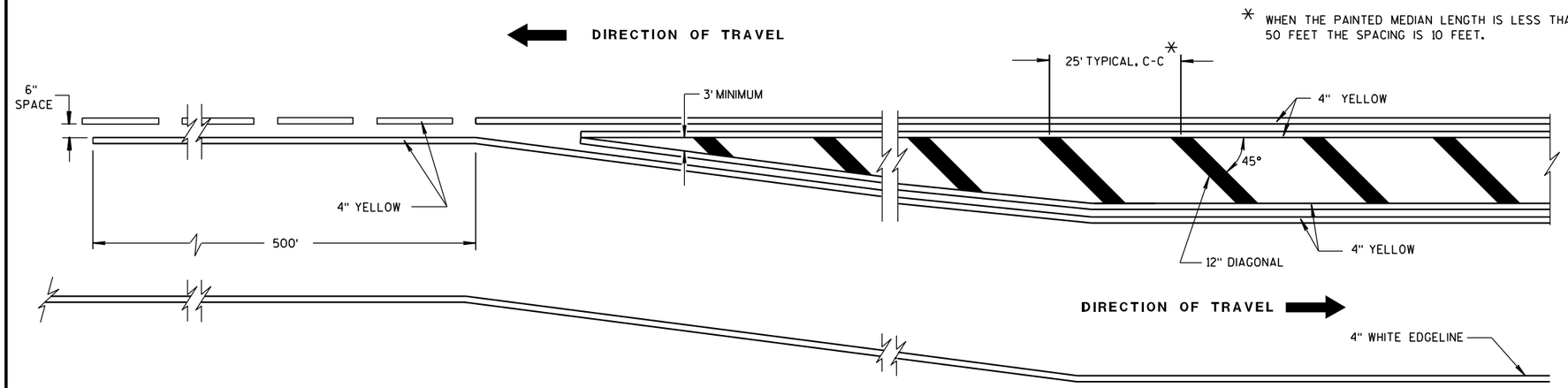
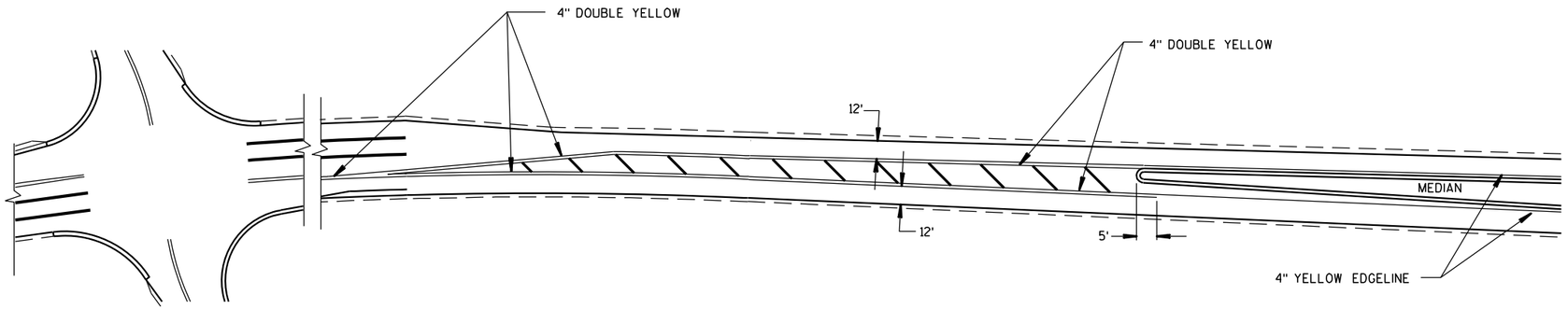
S.D.D. 15 C 11-5



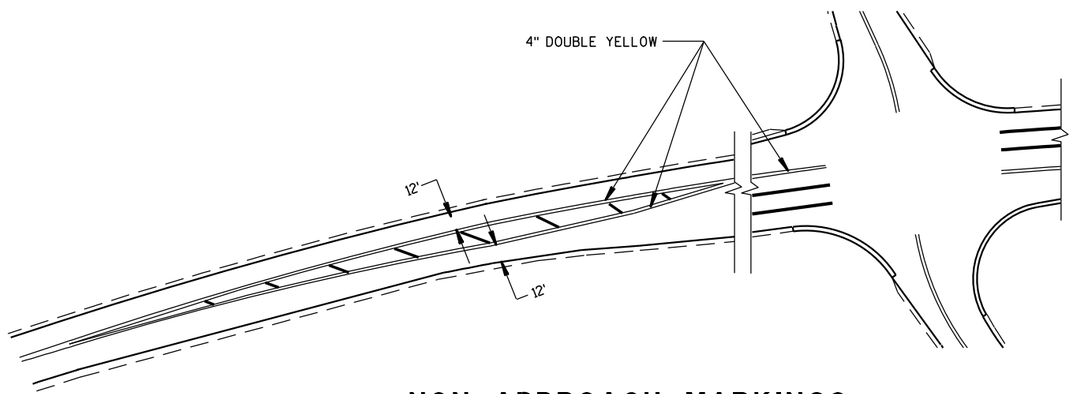
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	311 IGN

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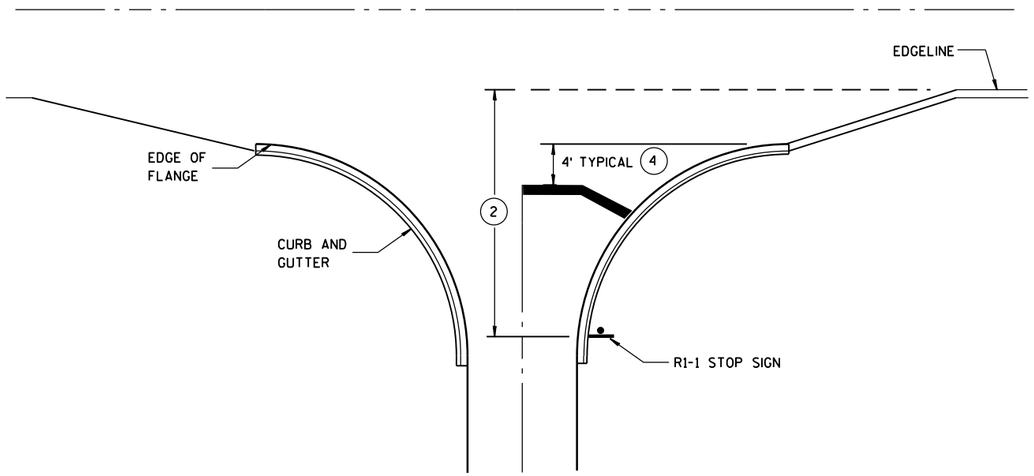
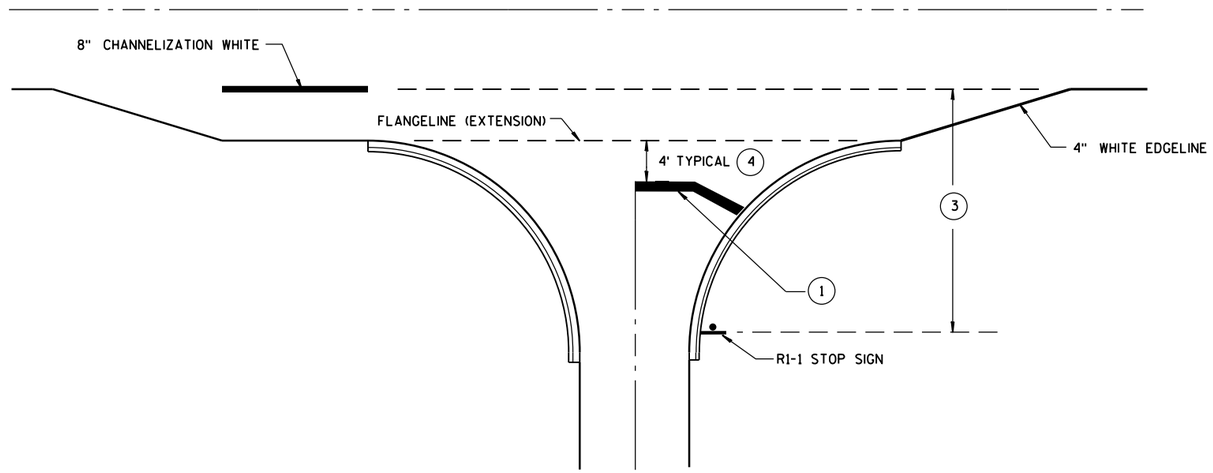
S.D.D. 15 C 18-3

6

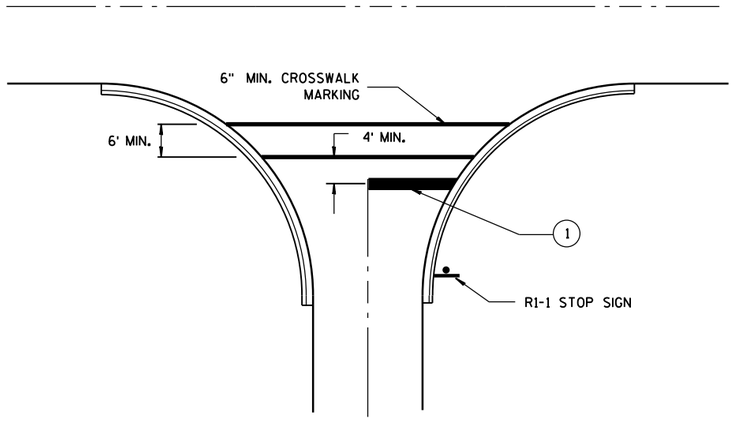
S.D.D. 15 C 18-3



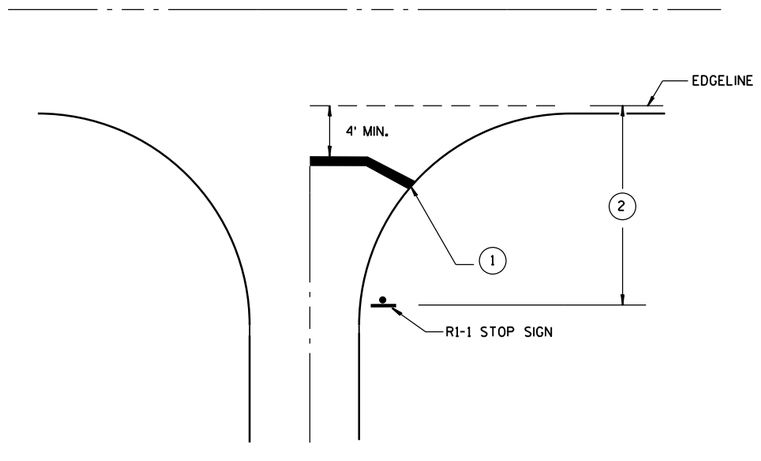
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

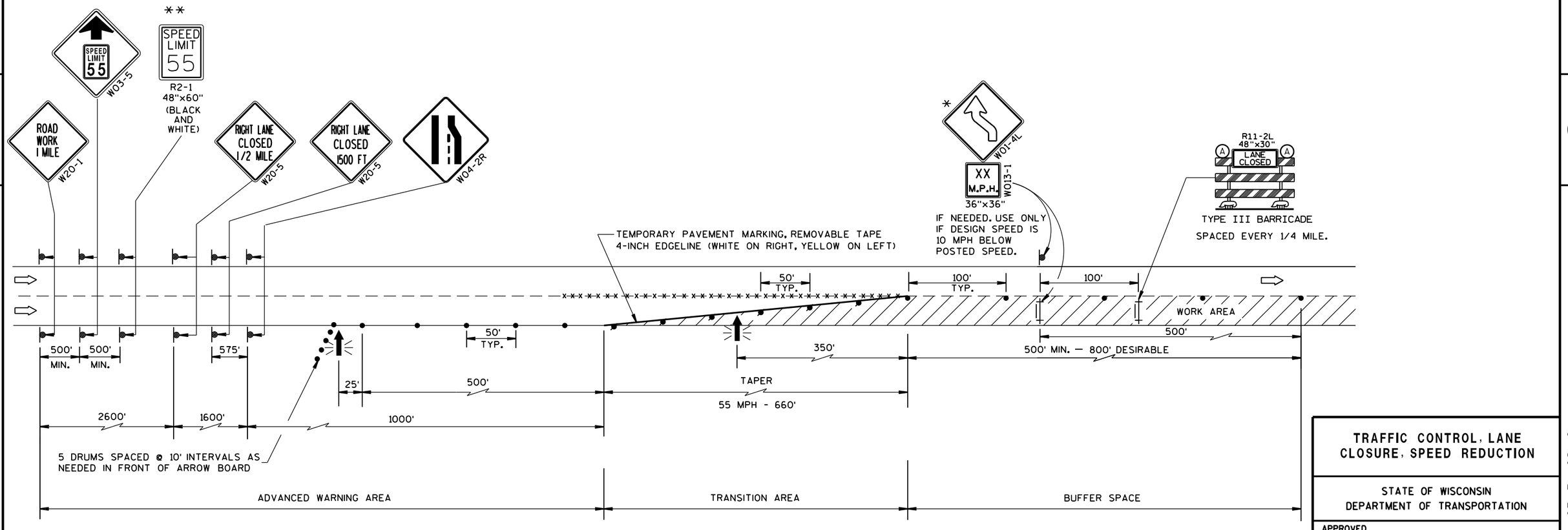
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3-2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 12-4

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

SIGN ON PERMANENT SUPPORT

TYPE "A" WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

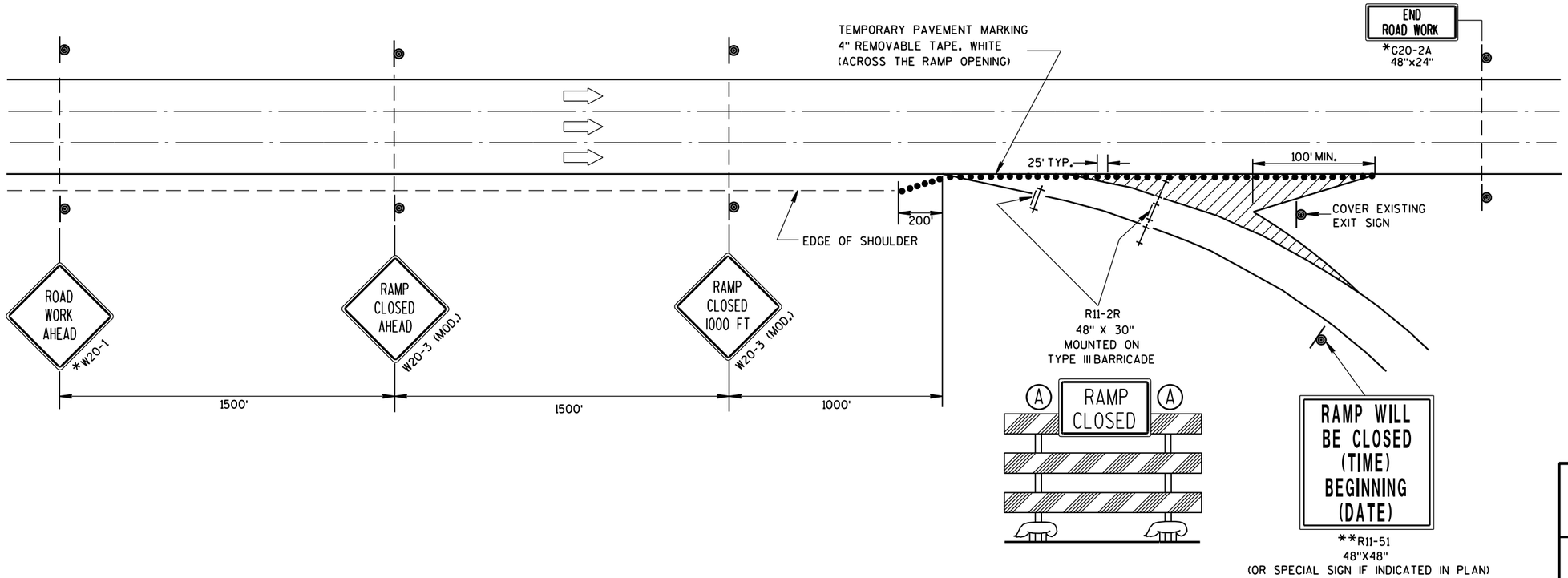
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

DESIGN

FHWA

6

S.D.D. 15 D 16-2

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

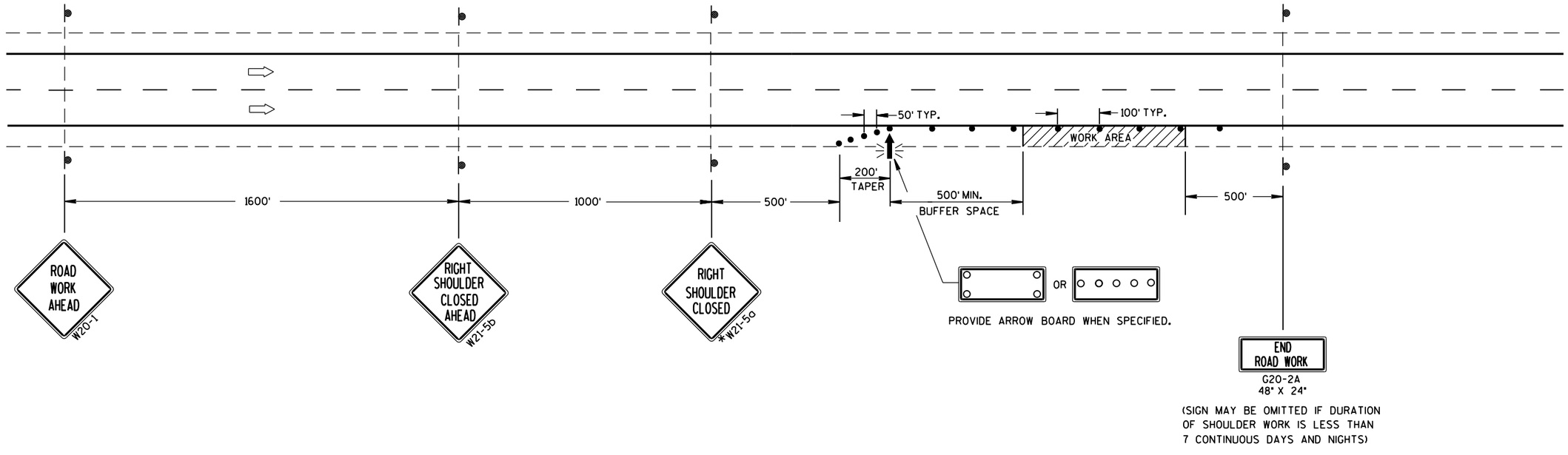
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

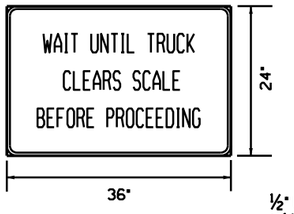
8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

6

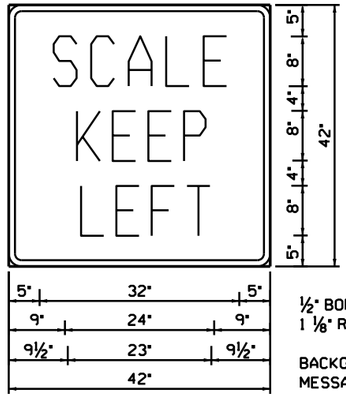
S.D.D. 15 D 27-2



½" BORDER
1 ⅛" RADIUS
3" LETTER HEIGHT

BACKGROUND: WHITE
MESSAGE: BLACK

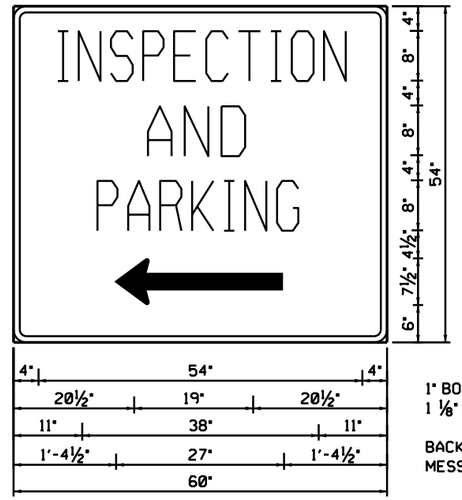
1



½" BORDER
1 ⅛" RADIUS

BACKGROUND: WHITE
MESSAGE: BLACK

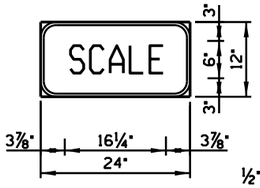
4



1" BORDER
1 ⅛" RADIUS

BACKGROUND: WHITE
MESSAGE: BLACK

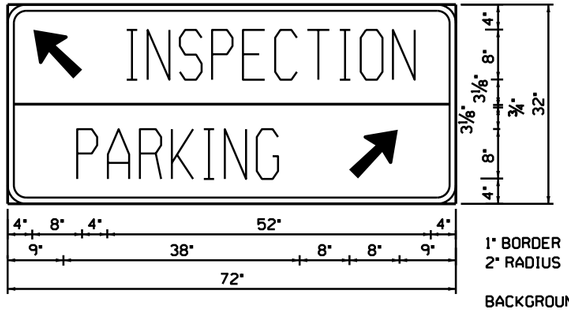
6



½" BORDER
2" RADIUS

BACKGROUND: WHITE
MESSAGE: BLACK

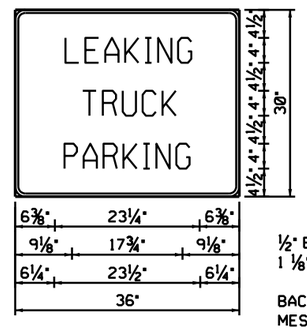
2



1" BORDER
2" RADIUS

BACKGROUND: WHITE
MESSAGE: BLACK

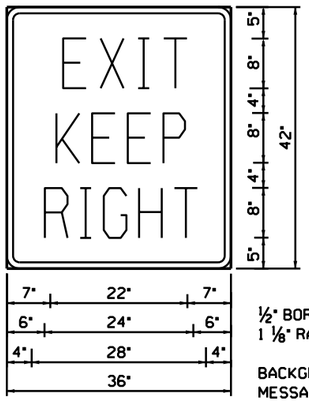
5



½" BORDER
1 ⅛" RADIUS

BACKGROUND: WHITE
MESSAGE: BLACK

7



½" BORDER
1 ⅛" RADIUS

BACKGROUND: WHITE
MESSAGE: BLACK

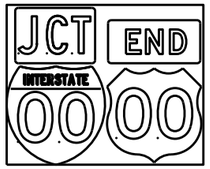
3

GENERAL NOTES:

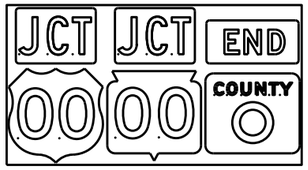
1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I"
3. UNLESS OTHERWISE NOTED, ALL SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "MESSAGE MATERIAL".
4. ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES C".
5. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
6. THE SIGN NUMBER IS DENOTED IN THE HEXAGON NEAR EACH DETAIL.
7. DO NOT SCALE.

TYPICAL ASSEMBLIES

J1-1

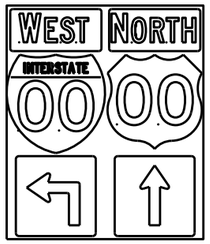


J1-2

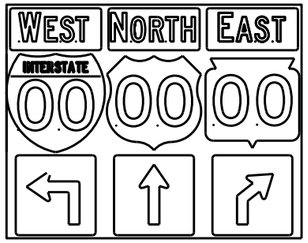


J1-3

J2-1



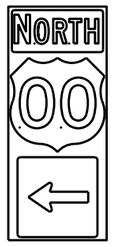
J2-2



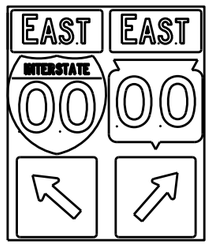
J2-3

JV

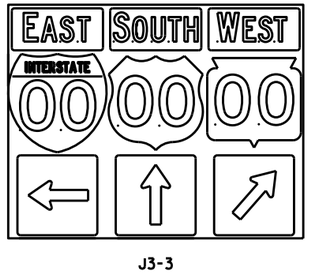
(Typical Vertical J-Assembly
See Note 10 and 11)



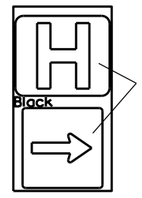
J3-1



J3-2



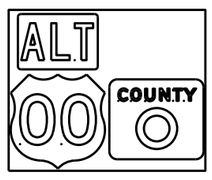
J3-3



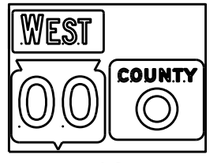
Blue Background

JH-1

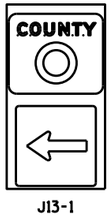
J4-1



J4-2



J4-2



J13-1

J12-1

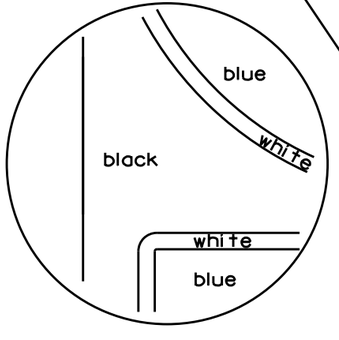
J32-1

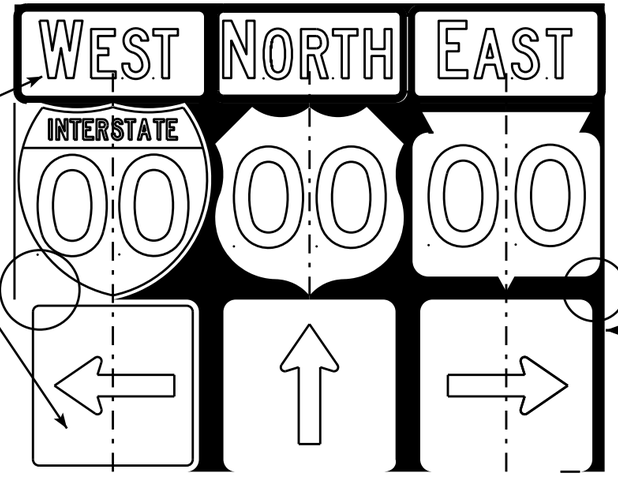
J33-1

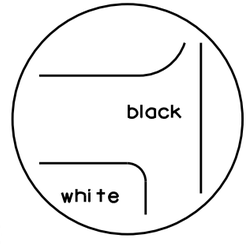
J23-1

J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

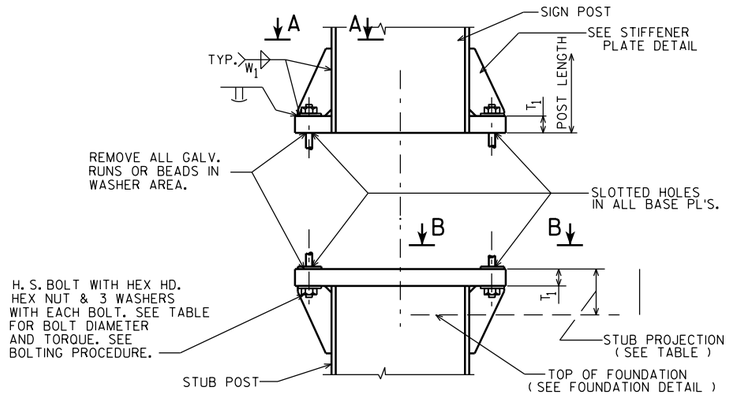
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

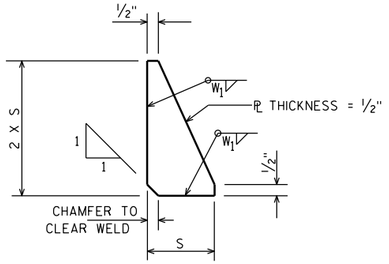
PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42

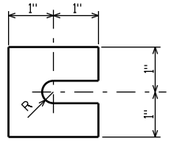


SIGN POST AND STUB POST ELEVATION



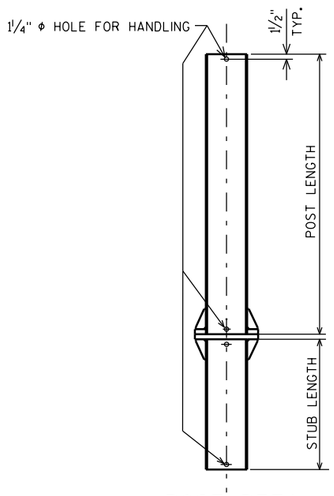
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

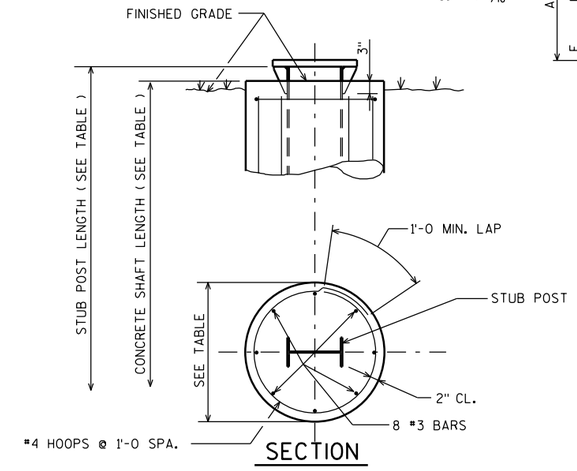


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

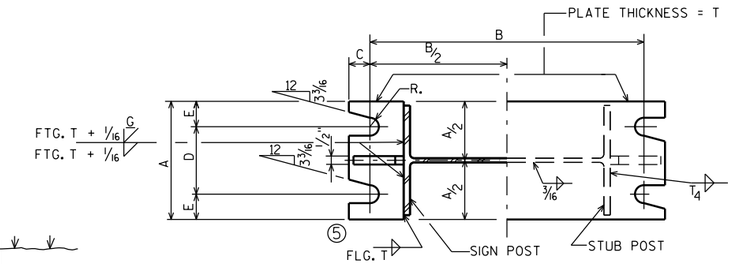
SHIM DETAIL



POST DETAIL

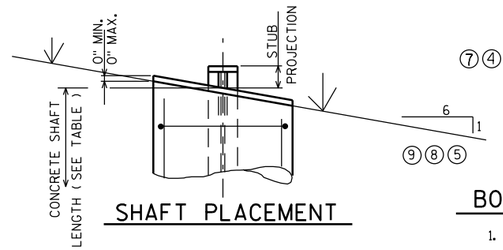


SECTION



SECTION A-A

SECTION B-B



SHAFT PLACEMENT

7 4

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & ½ WIND[4]	140 [4]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
(9) THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

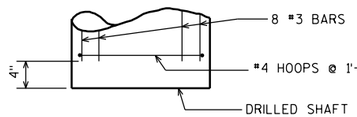
BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

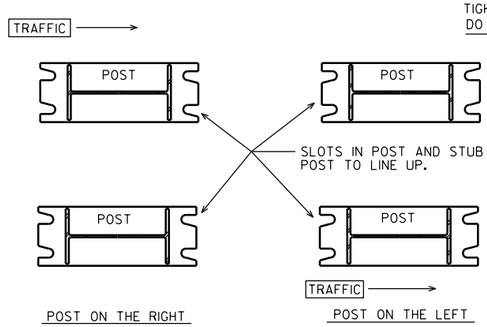
NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

QUANTITIES FOR 1 FOOTING	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
(7) E	1.0	62

REINF. TYPE	#3	#4
A	8 @ 4'-5	5 @ 6'-3
B	8 @ 6'-5	7 @ 6'-3
C	8 @ 6'-11	7 @ 6'-3
D	8 @ 7'-5	8 @ 6'-3
(7) E	8 @ 7'-11	9 @ 6'-3



FOUNDATION DETAIL



POST SLOT ORIENTATION (7)

TYPE	DIMENSION: POST SIZE	BASE CONNECTION DATA TABLE: BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	FOUNDATION DATA: STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	(2) K
(4) A	W10"X12.0 #/FT.	¾" ϕ @ 75"-FT.	5¼"	1'-0⅜"	⅞"	3½"	⅞"	1"	3/16"	5/16"	13/32"	2⅛"	3'-6	3"	2'-0 ϕ	5'-0	76.0# (4)
(4) B	W12"X16.0 #/FT.	⅞" ϕ @ 85"-FT.	5½"	1'-4¼"	1"	3½"	1"	1¼"	¼"	5/16"	15/32"	3"	5'-6	3"	2'-0 ϕ	7'-0	146.5# (4)
C	W12"X19.0 #/FT.	⅞" ϕ @ 85"-FT.	5½"	1'-4¼"	1"	3½"	1"	1½"	5/16"	5/16"	15/32"	3"	6'-0	3"	2'-0 ϕ	7'-6	182.1#
D	W12"X22.0 #/FT.	⅞" ϕ @ 85"-FT.	5½"	1'-4¼"	1"	3½"	1"	1½"	3/8"	5/16"	15/32"	3"	6'-6	3"	2'-0 ϕ	8'-0	210.5#
(3) E	W12"X26.0 #/FT.	1" ϕ @ 90"-FT.	7"	1'-4¼"	1¼"	4"	1½"	1½"	3/8"	5/16"	17/32"	3"	7'-0	3"	2'-0 ϕ	8'-6	293.0# (3)

(1) (6) (1)

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION
APPROVED Matthew R Rauch for State Traffic Engineer
DATE 2/06/14 PLATE NO. A3-1.14

NO.	DATE	REVISION
(10)	1-21-14	LUBRICATION OF BASE BOLTS
(9)	4-26-11	REMOVE NON-GALVANIZED
(8)	10-30-96	NOT GALVANIZED/GALVANIZED
(7)	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
(6)	8-24-87	BASE CONN. WELD
(5)	10-13-81	BASE CONN. WELD & FUSE ℄ WASHERS
(4)	10-19-79	POST A & B, A572 GR. 50, & K
(2)	11-28-78	"K" (3) 4-23-79 TYPE "E"
(1)	5-4-78	T_1 , T_2 & W_1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

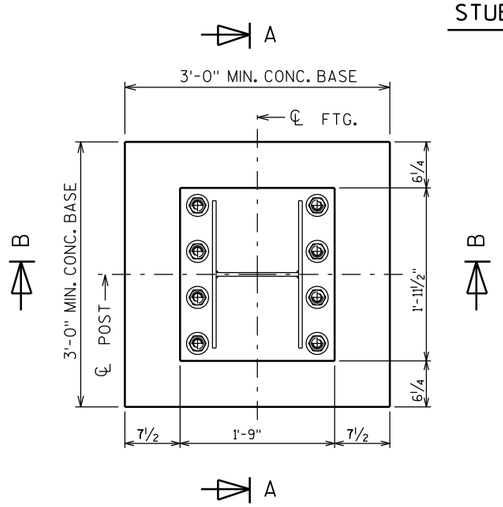
CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS

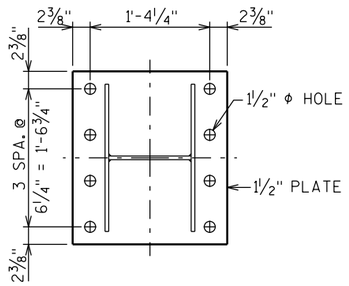
SHEET 318

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

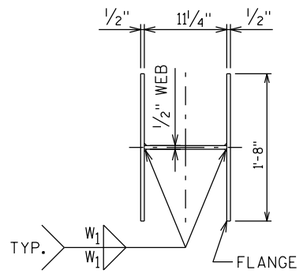
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



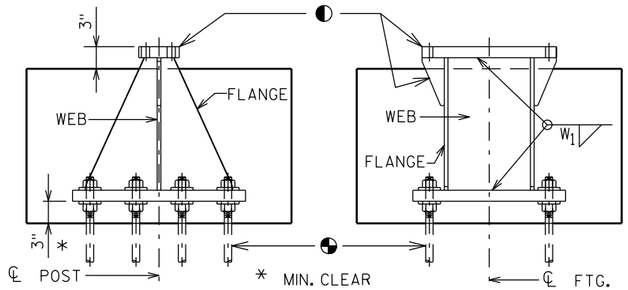
BASE PLATE



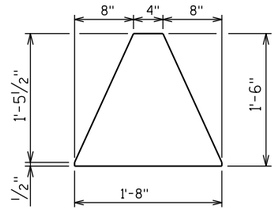
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



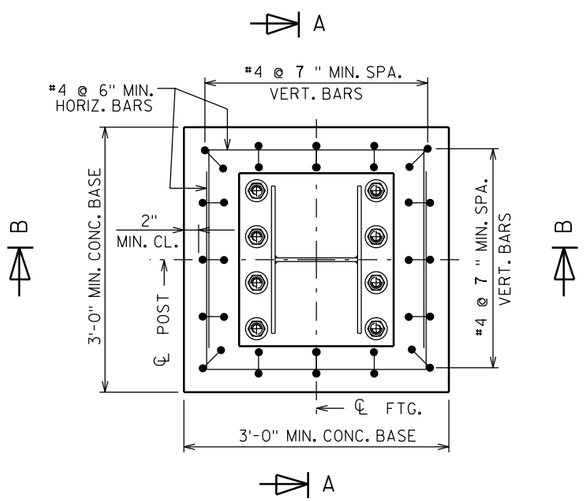
FLANGE

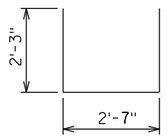
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

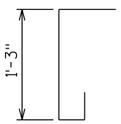
CONCRETE BASE SECTION





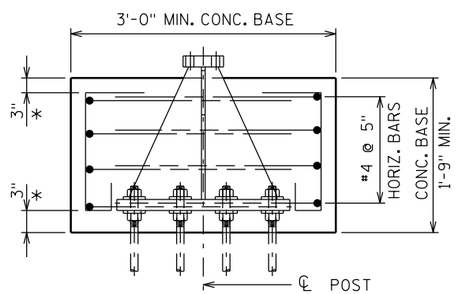
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



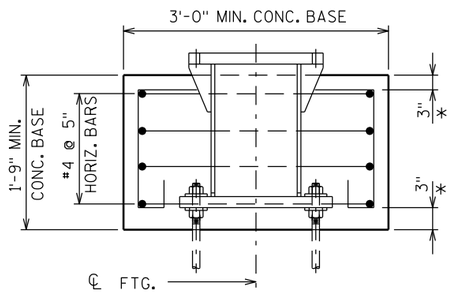
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

WISCONSIN DEPT OF TRANSPORTATION

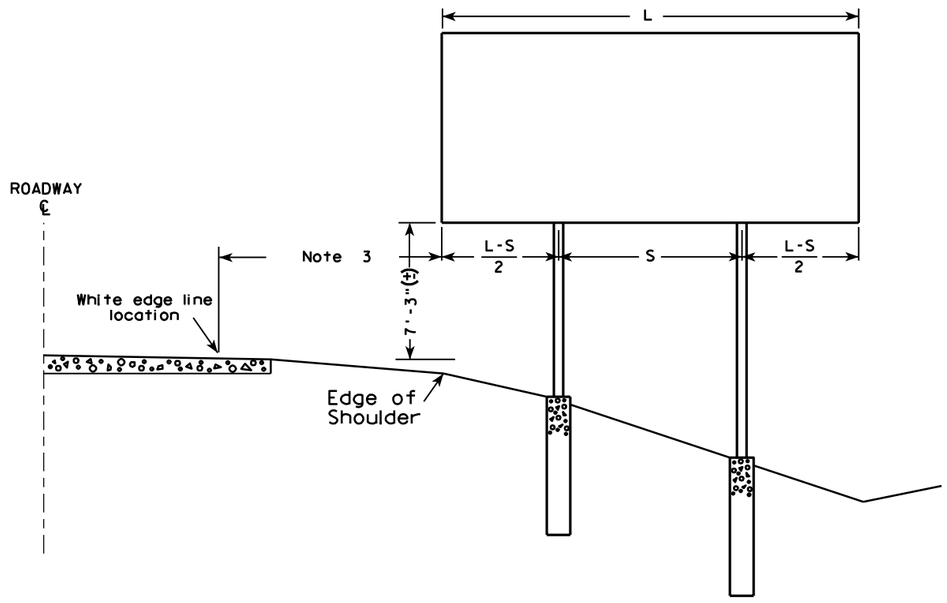
APPROVED Matthew R Rauch for State Traffic Engineer

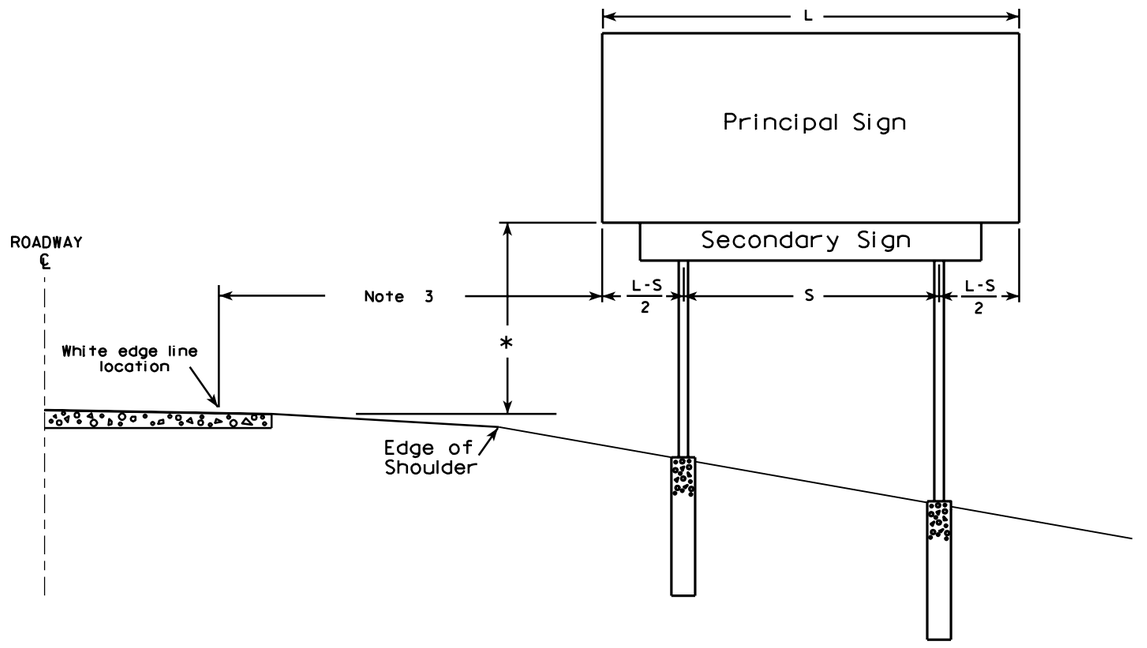
DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31M.DGN PLOT DATE : 10-MAR-2014 15:16 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.556674:1.000000

WISDOT/CADDS SHEET 42





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

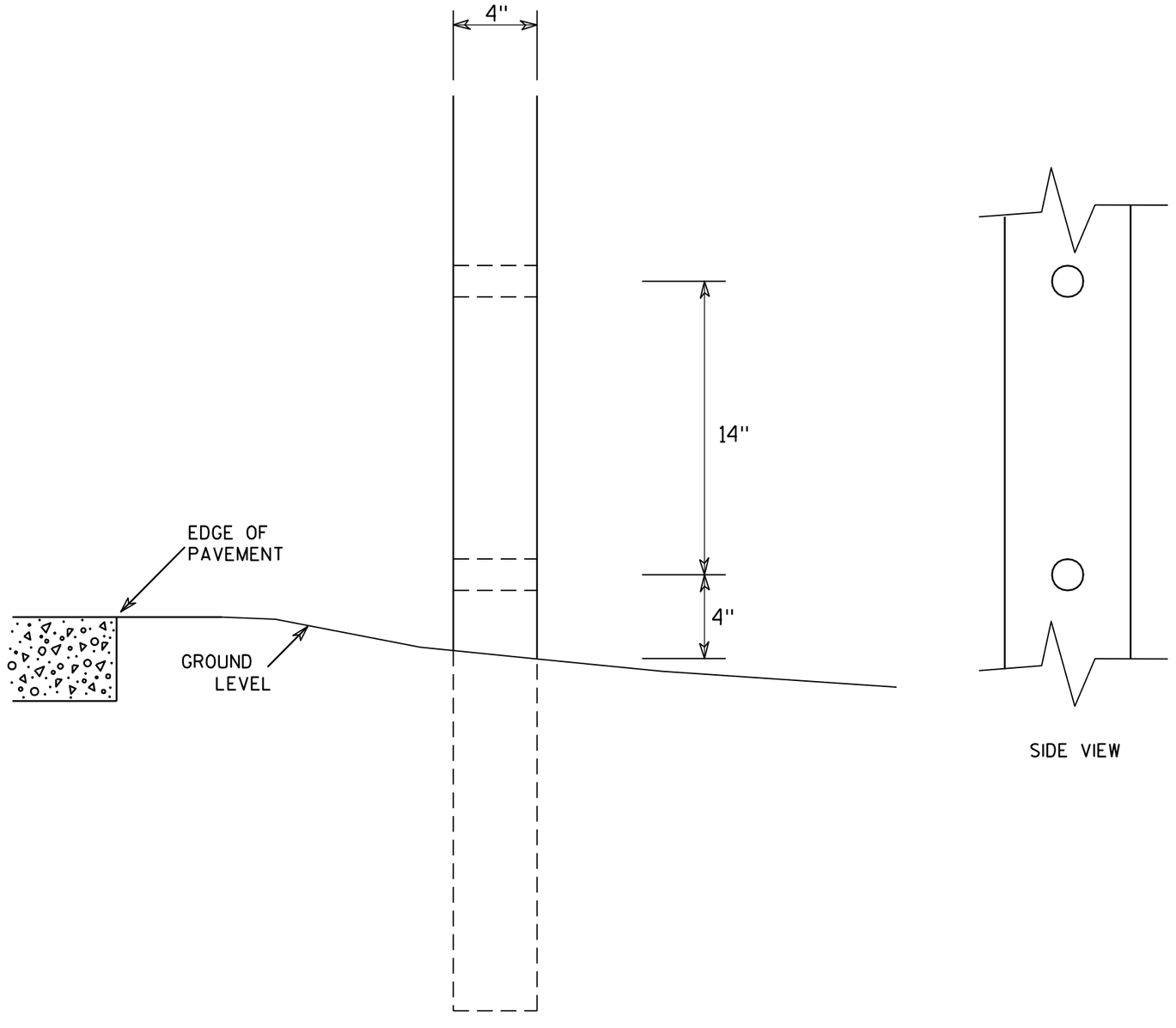
TYPICAL INSTALLATION
OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 320	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

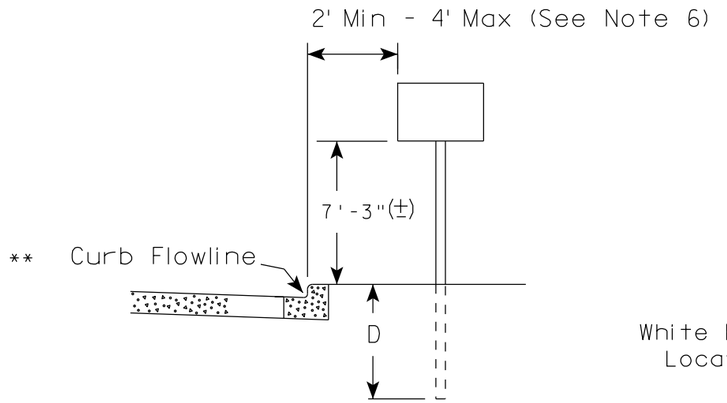
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

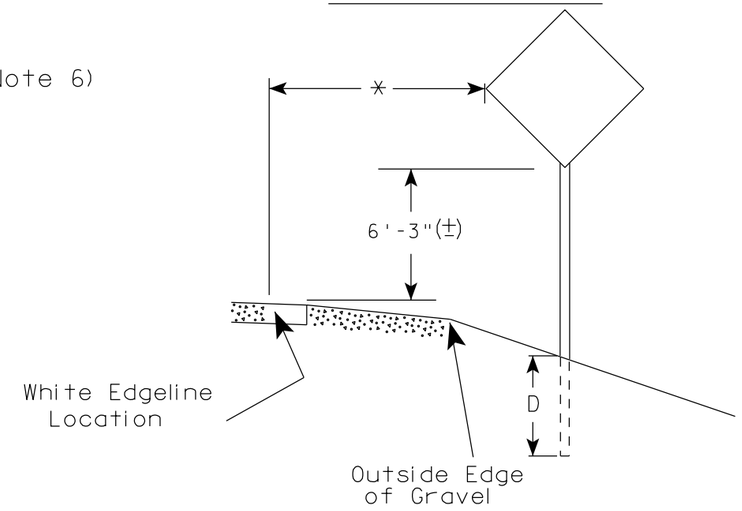
DATE 3/27/97 PLATE NO. A4-11.2

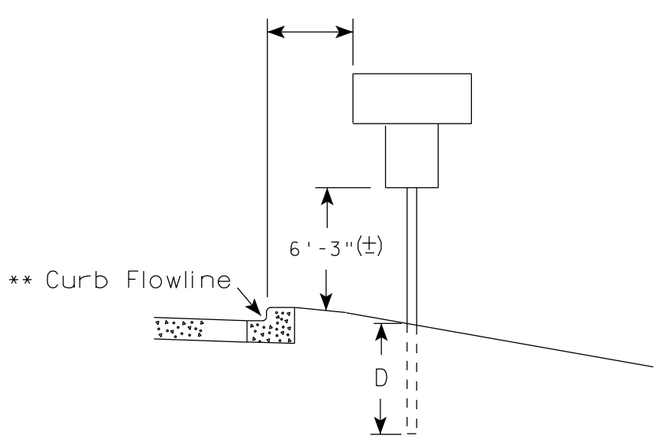
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 321	E

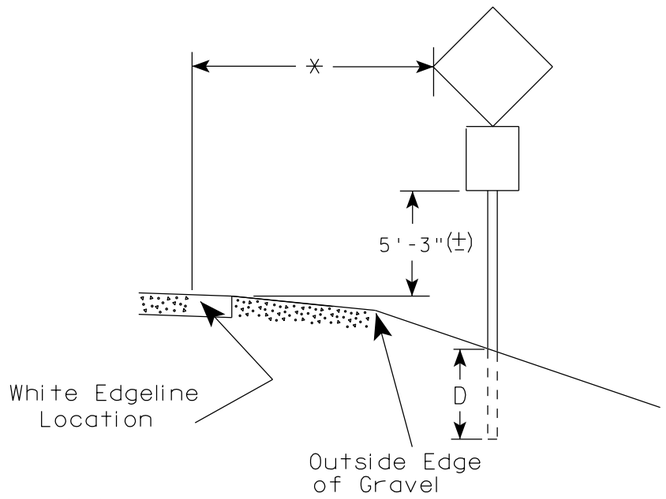
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

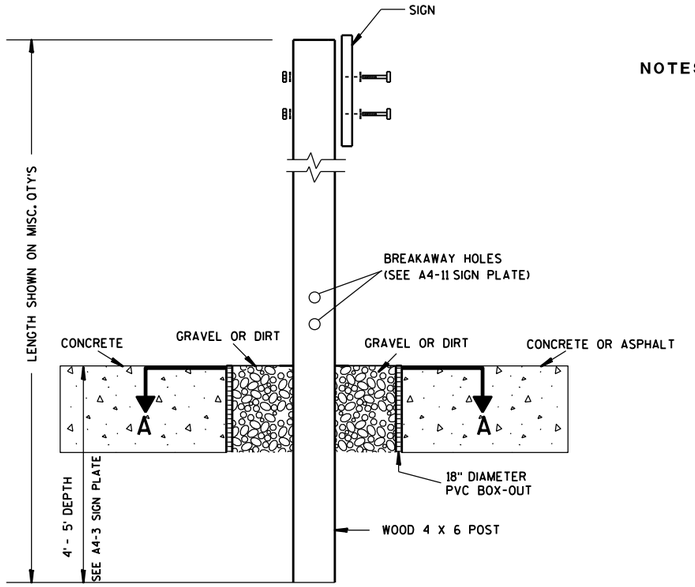
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

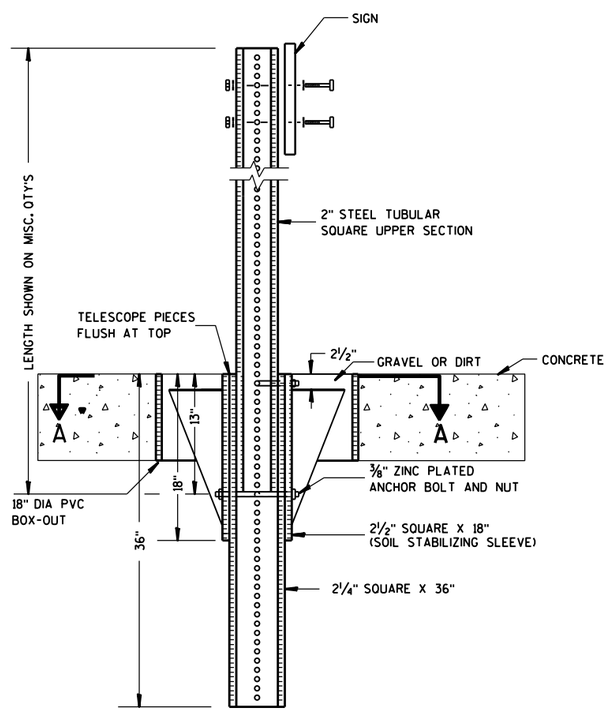
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

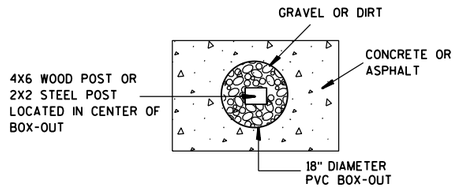
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

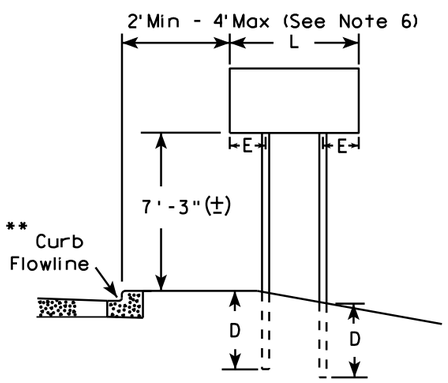
APPROVED Matthew R Rauch
for State Traffic Engineer

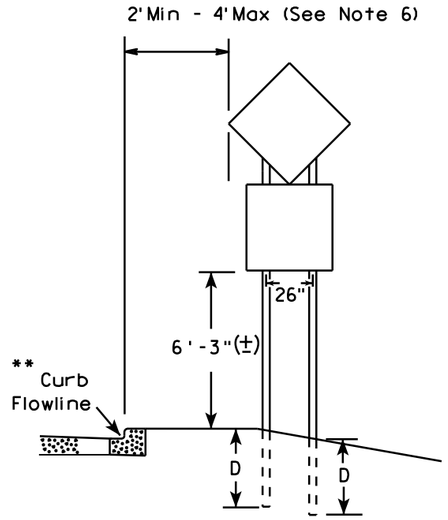
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

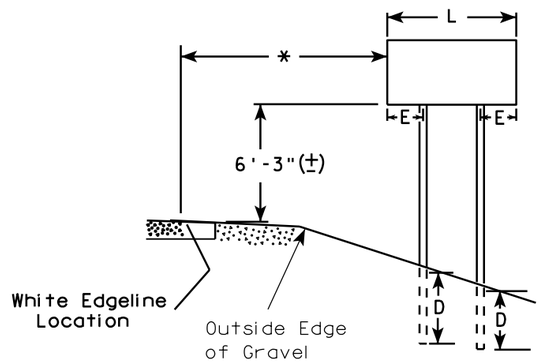
URBAN AREA

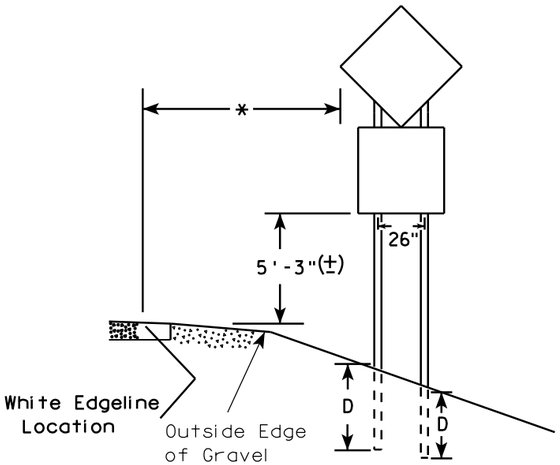




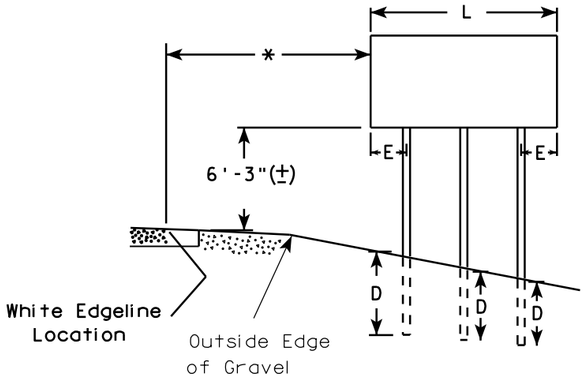
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

***

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

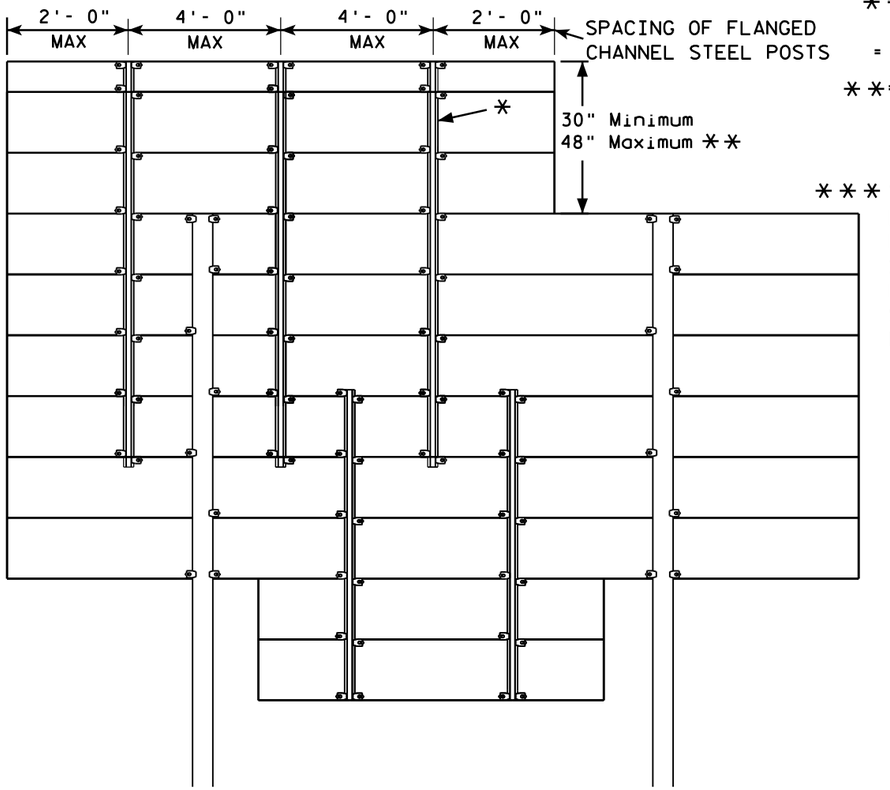
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4 12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

GROUND MOUNTED SIGN

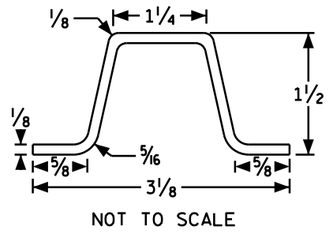


*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

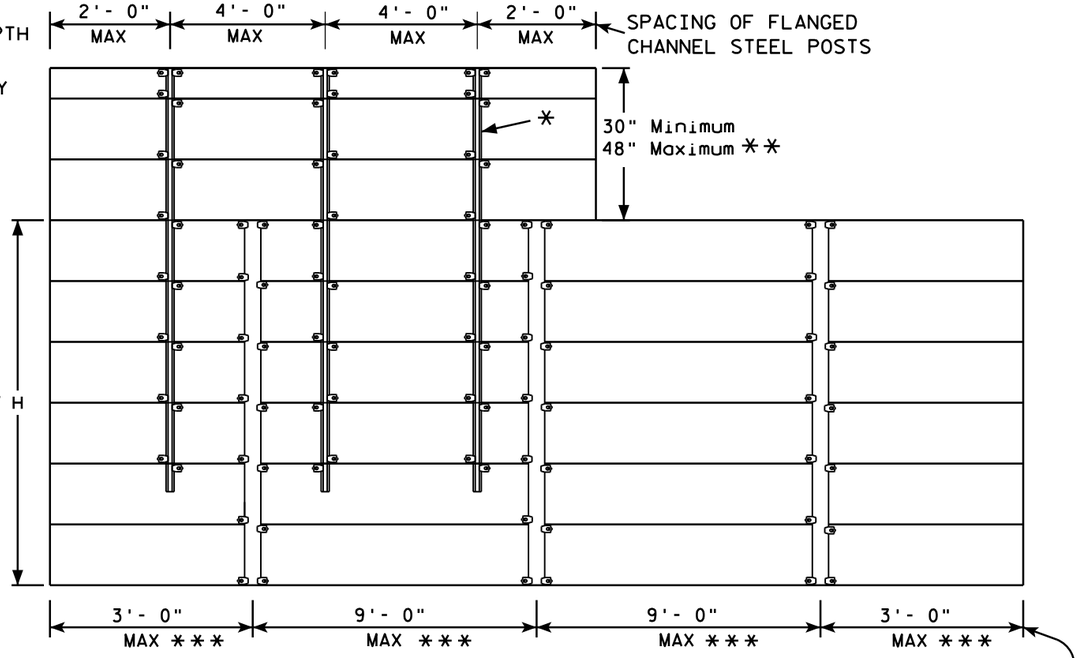
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

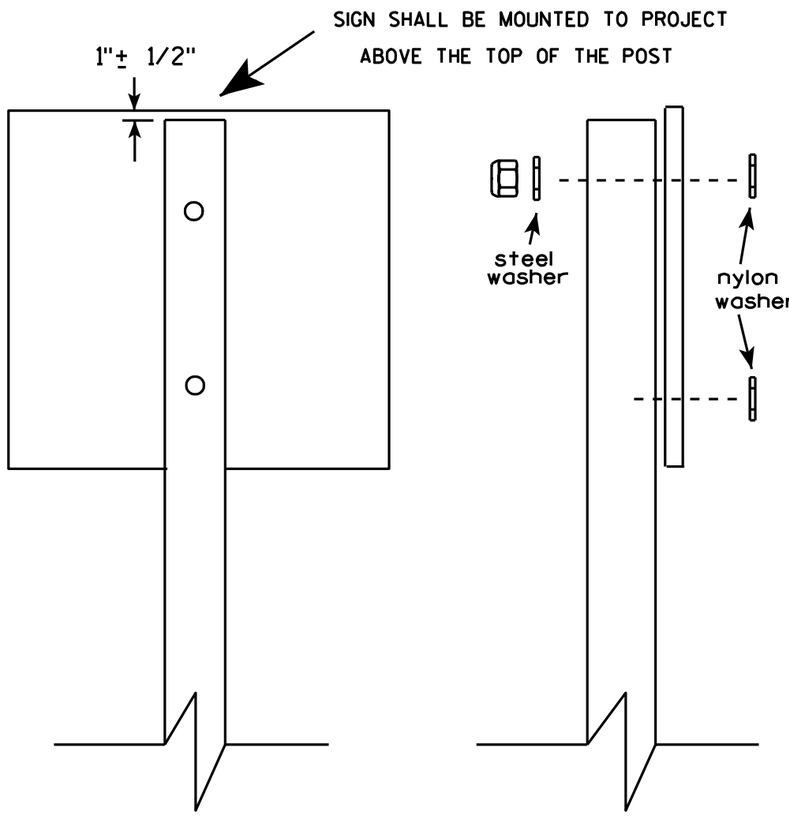
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

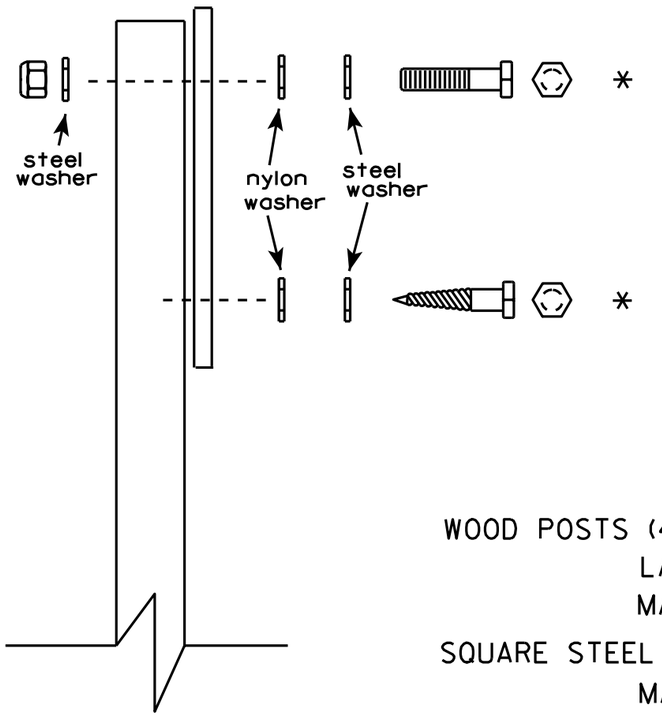
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 325 A4-6.12

PROJECT NO:				SHEET NO:	E





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

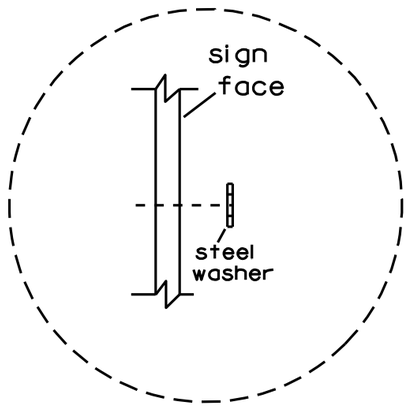
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

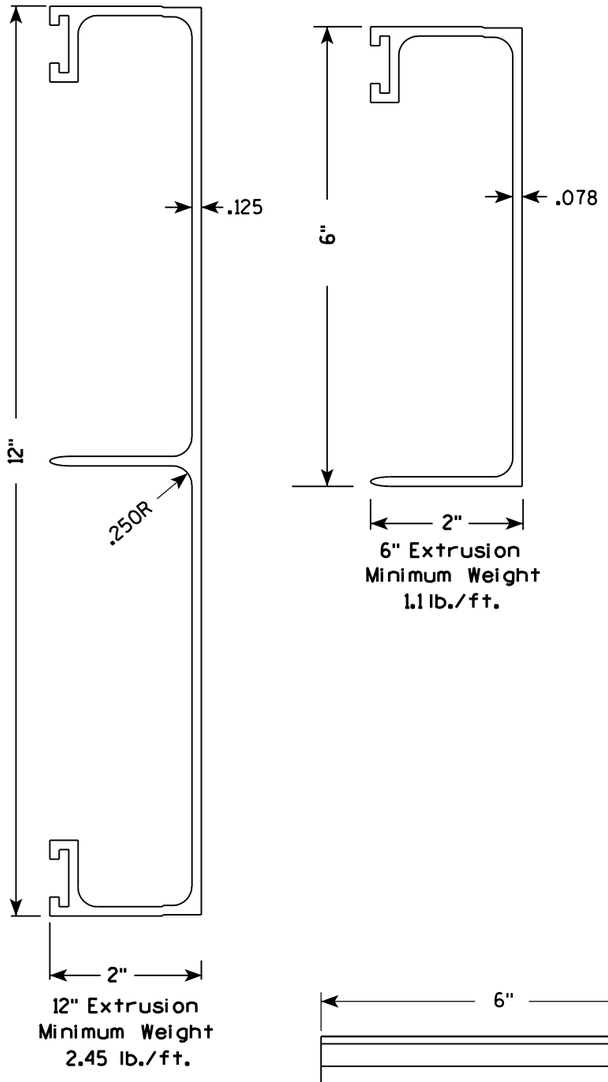
7

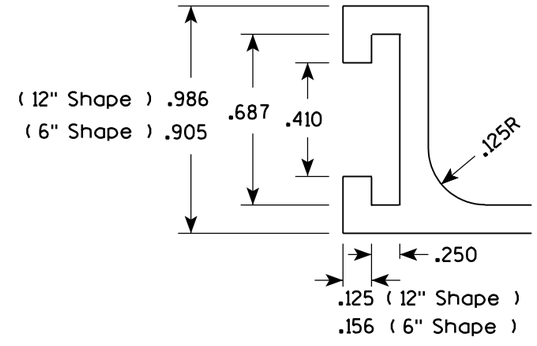
7

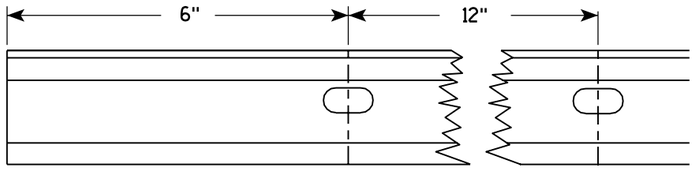
PROJECT NO:

SHEET NO: 326 E

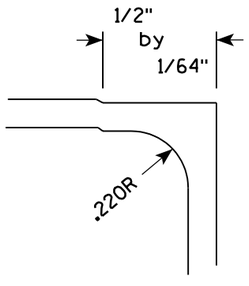
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

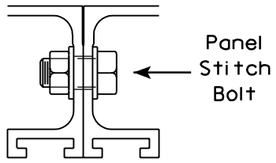


Hardware

STITCH BOLT, WASHER & NUT

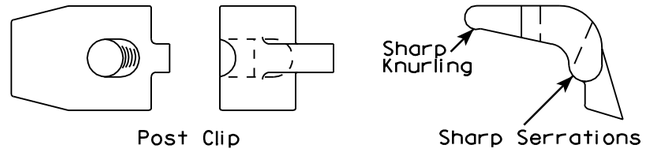
The hardware includes:

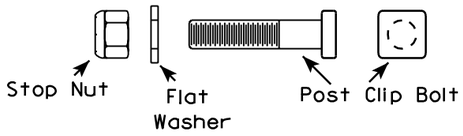
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

PROJECT NO:

SHEET NO: 327 E

FILE NAME : C:\Users\Projects\tr_stdplate\A52.DGN PLOT DATE : 28-SEP-2005 07:20 PLOT BY : DOTDZK

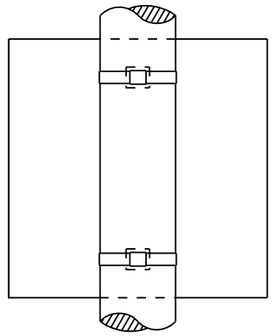
WISDOT/CADDS SHEET 42

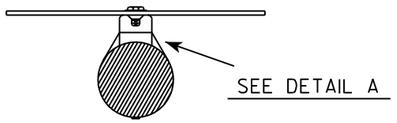
7

7

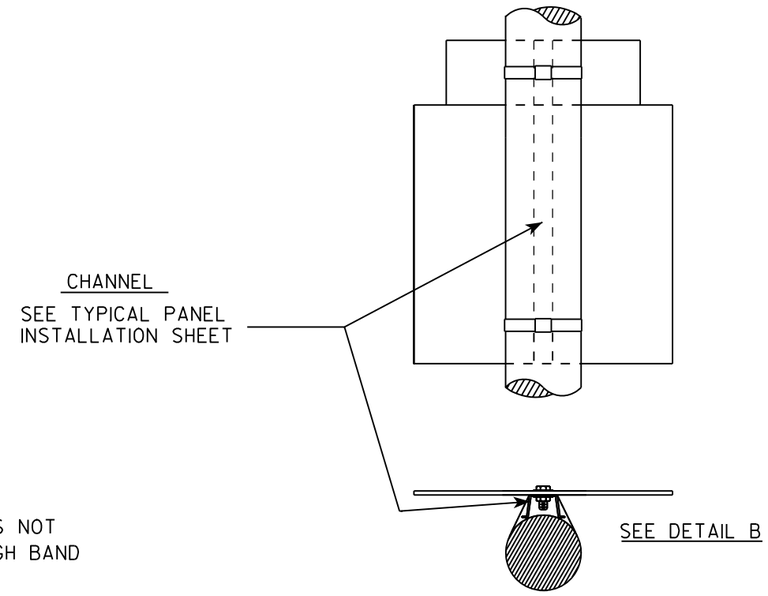
BANDING

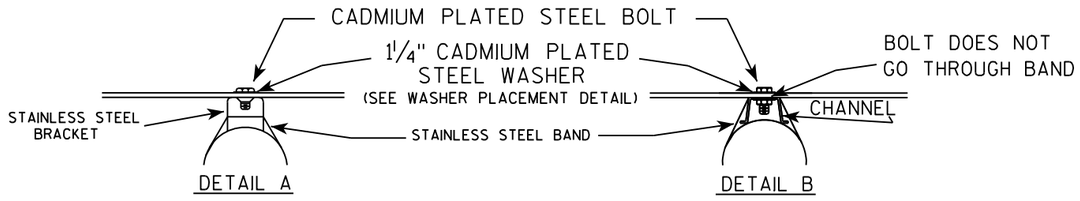
SINGLE SIGN



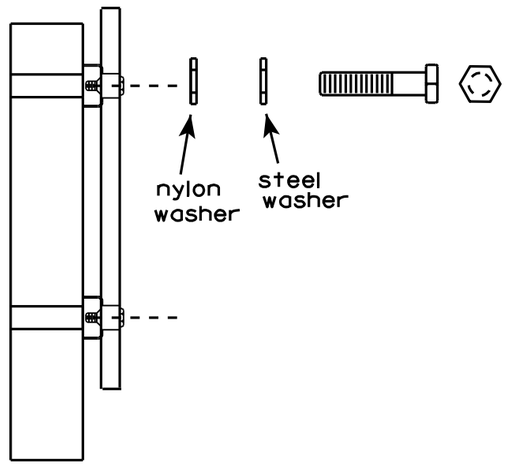


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

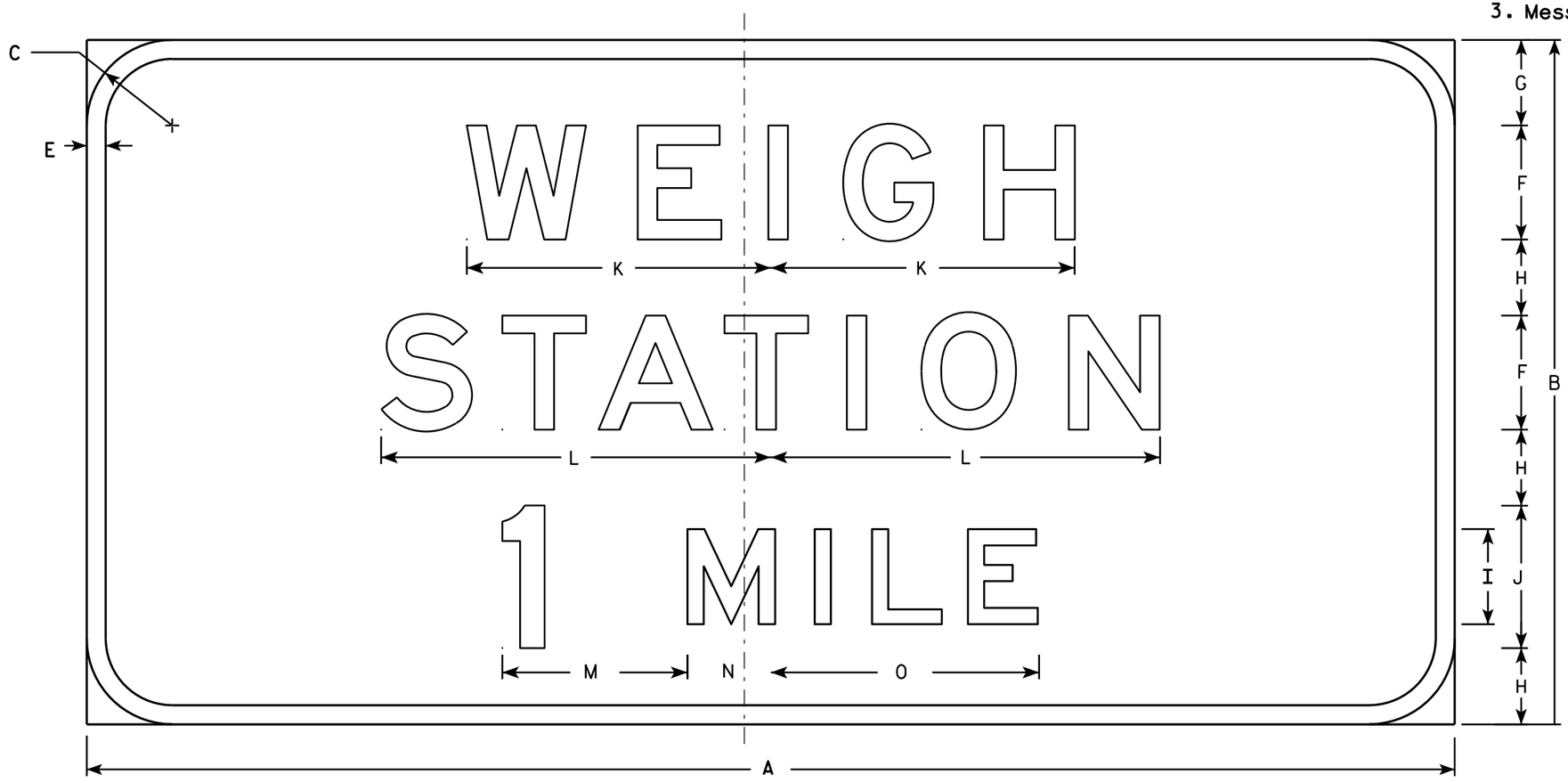
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 328	E

NOTES

1. Sign is Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E



E5-56A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	144	72	9		2	12	9	8	10	15	32	41	19 ½	8 ¾	28 ¼												72.0
5	144	72	9		2	12	9	8	10	15	32	41	19 ½	8 ¾	28 ¼												60.0

STANDARD SIGN
E5-56A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/10 PLATE NO. E5-56A.7

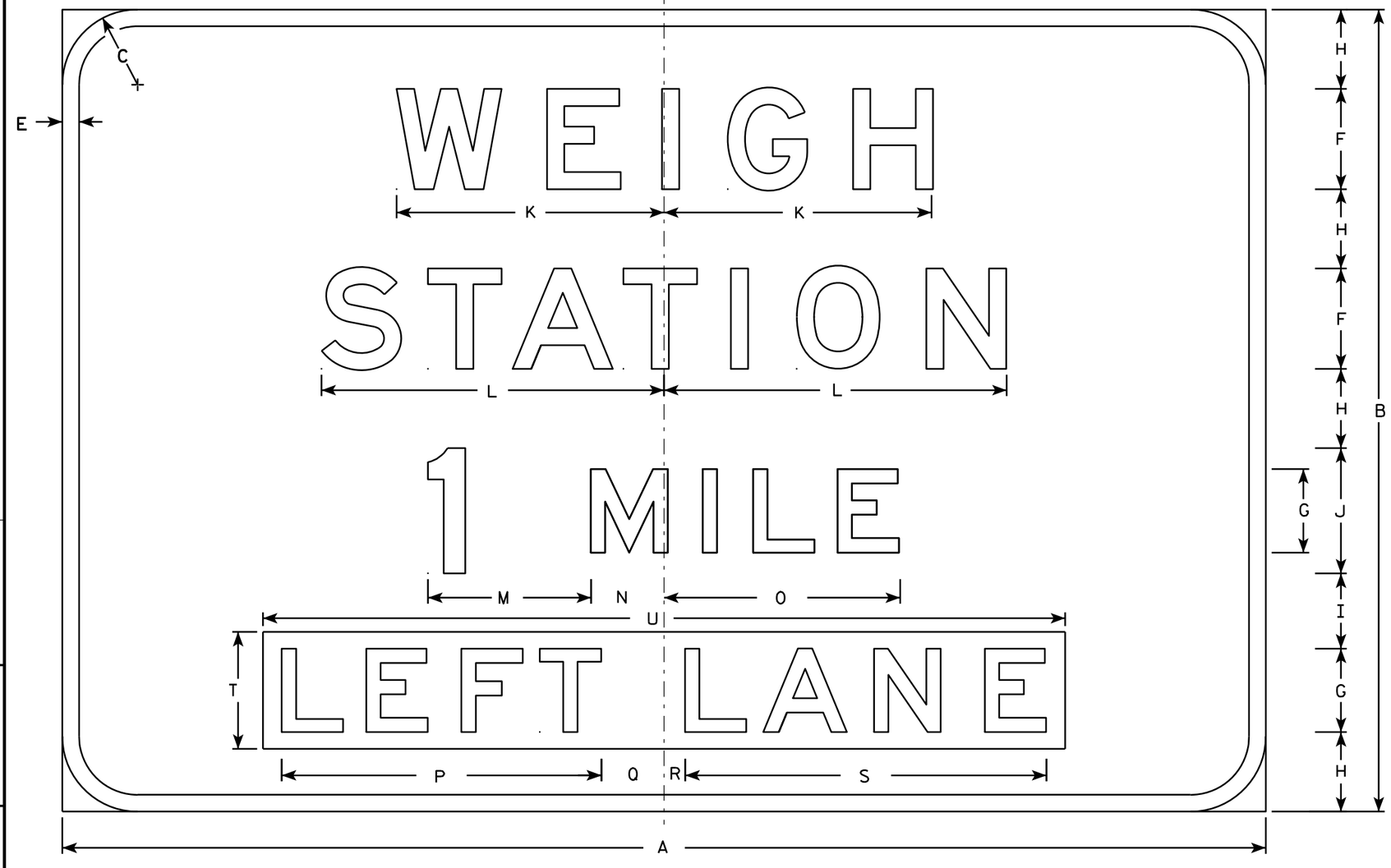
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 329	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\E556A.DGN PLOT DATE : 08-NOV-2010 15:18 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 14.202386:1.000000

WISDOT/CADDS SHEET 42

7

7



E5-56L

NOTES

1. Sign is Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - E
4. LEFT LANE PLAQUE COLOR:
   Background - Yellow - Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	144	96	9		2	12	10	9 1/2	9	15	32	41	19 1/2	8 3/4	28 1/4	38 1/4	7 1/2	2 1/2	43 1/4	14	96						96.0
5	144	96	9		2	12	10	9 1/2	9	15	32	41	19 1/2	8 3/4	28 1/4	38 1/4	7 1/2	2 1/2	43 1/4	14	96						96.0

STANDARD SIGN
E5-56L

WISCONSIN DEPT OF TRANSPORTATION

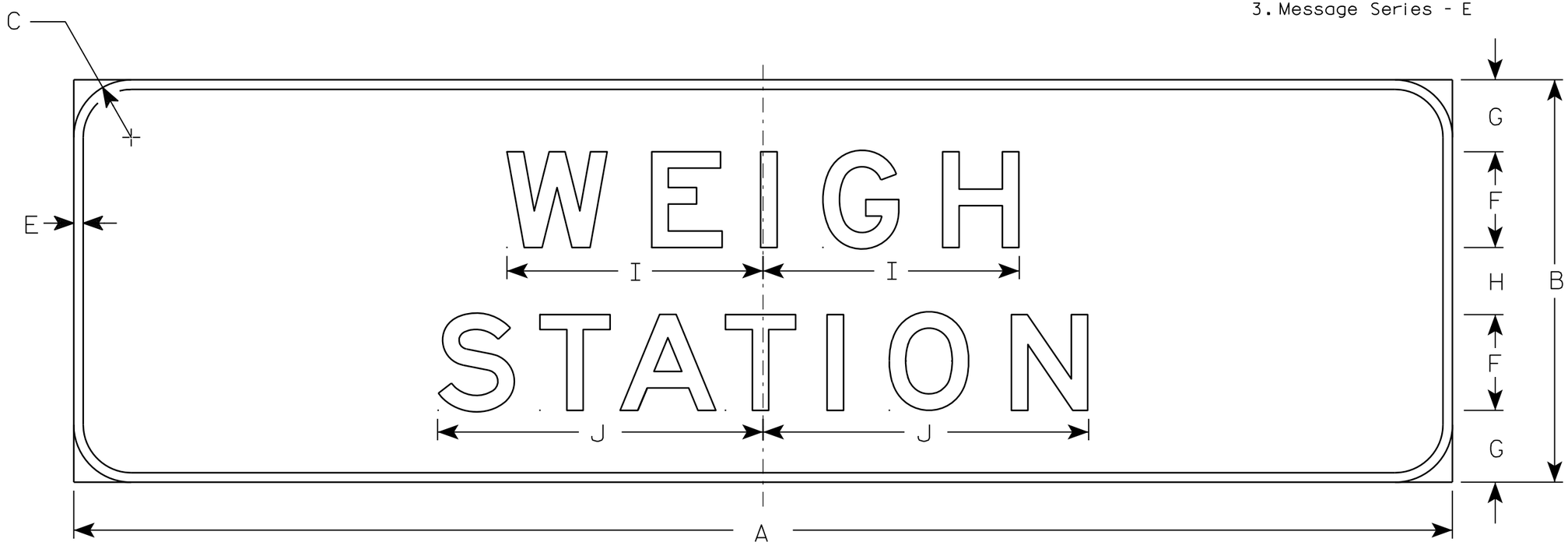
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/5/12 PLATE NO. E5-56L.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 330	E

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E



E5-57

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	144	42	6		1	10	7 1/2	7	26 3/4	34																	42.0
5	144	42	6		1	10	7 1/2	7	26 3/4	34																	42.0

STANDARD SIGN
E5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/10 PLATE NO. E5-57.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 331	E

NOTES

1. All Signs are Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	
2	3600 mm X 1800 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	144	72	6		2	10	6 ½	6	7 ½	20 ½	10	21 ¼	6 ¾	3 ¼	55 ⅛	37 ⅜	60	35	10	15 ¼	46 ¼	7 ¼	29				6.0	0.54
3																												
4																												
5																												

STANDARD SIGN
E5-65

WISCONSIN DEPT OF TRANSPORTATION

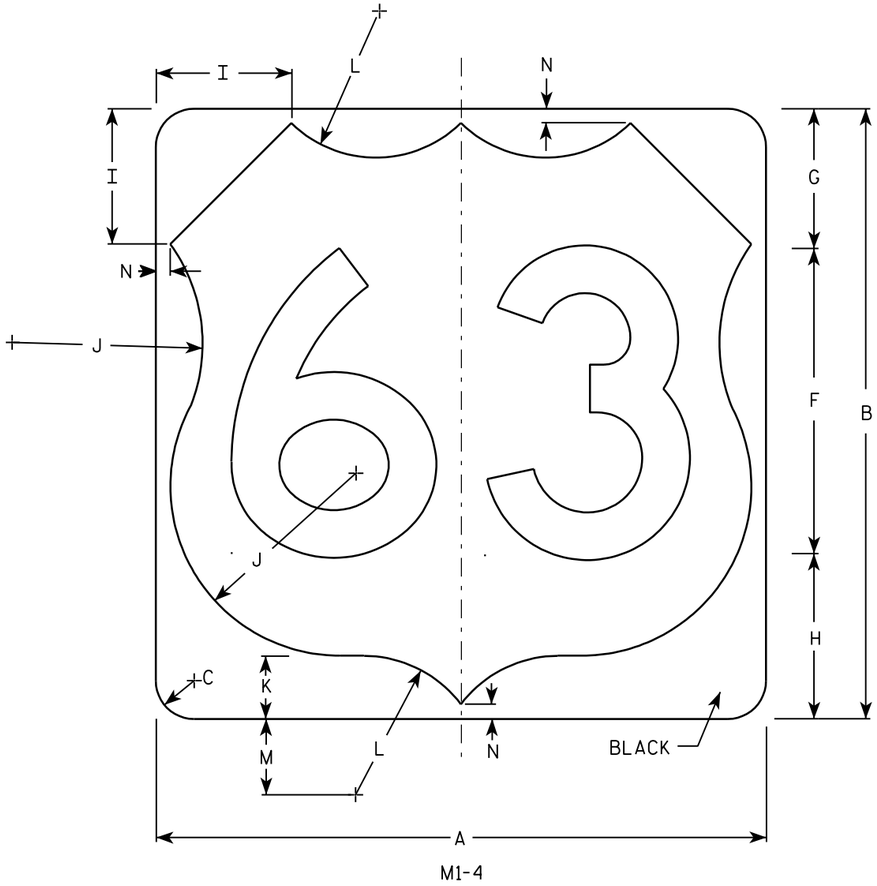
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/8/08 PLATE NO. E5-65.2

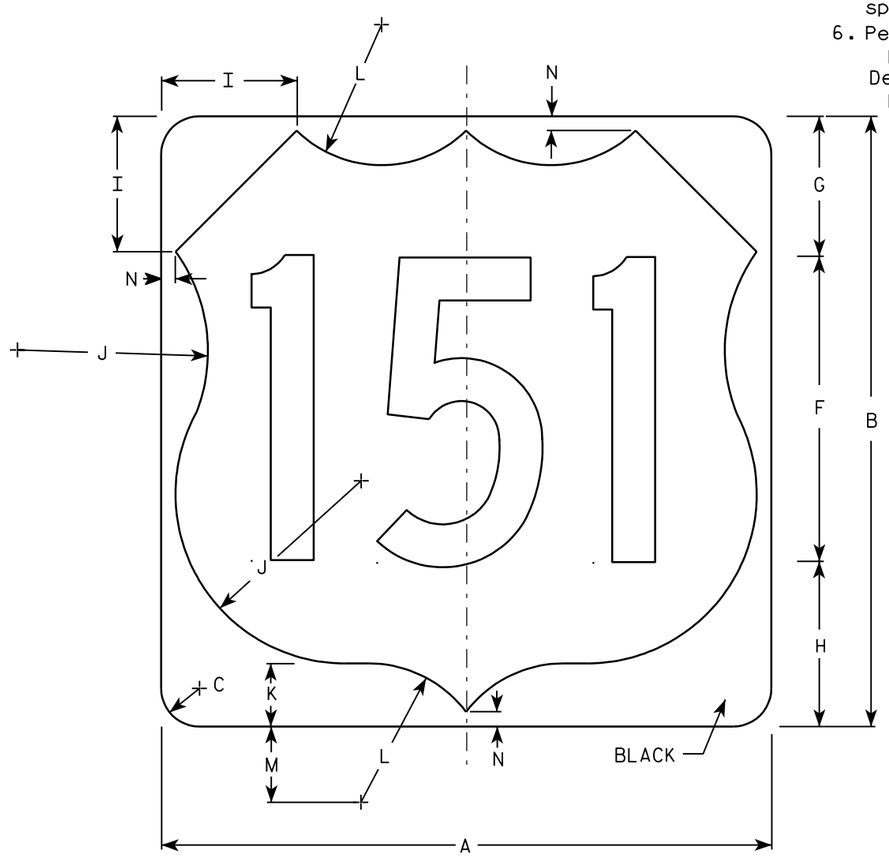
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 332	E

FILE NAME : C:\Users\Projects\tr_stdplate\E565.DGN PLOT DATE : 14-JAN-2009 08:56 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 19.987500:1.000000

WISDOT/CADDS SHEET 42



M1-4



M1-4

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

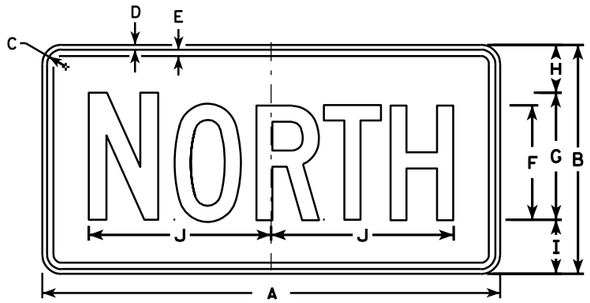
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

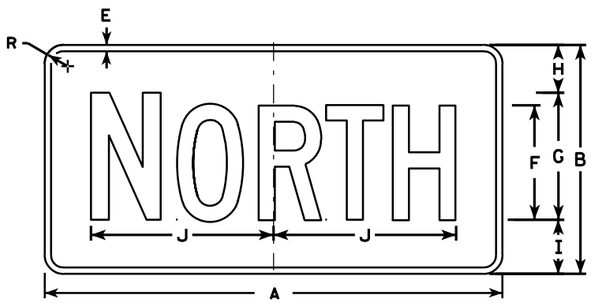
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 333 | E

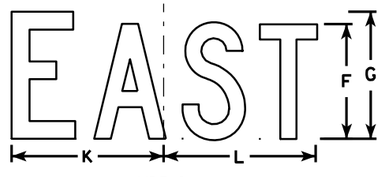


M3-1
MK3-1
MO3-1

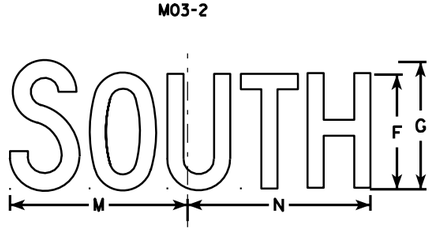


MB3-1
MG3-1
MM3-1
MN3-1

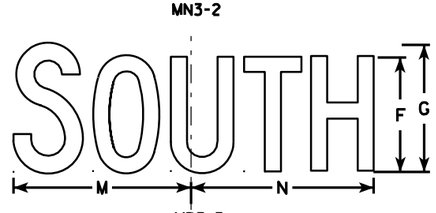
M3-2
MK3-2
MO3-2



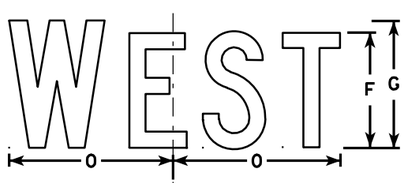
MB3-2
MG3-2
MM3-2
MN3-2



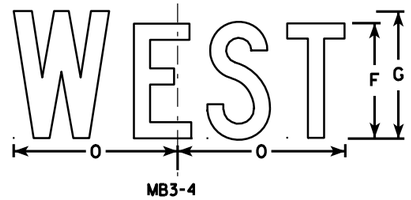
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

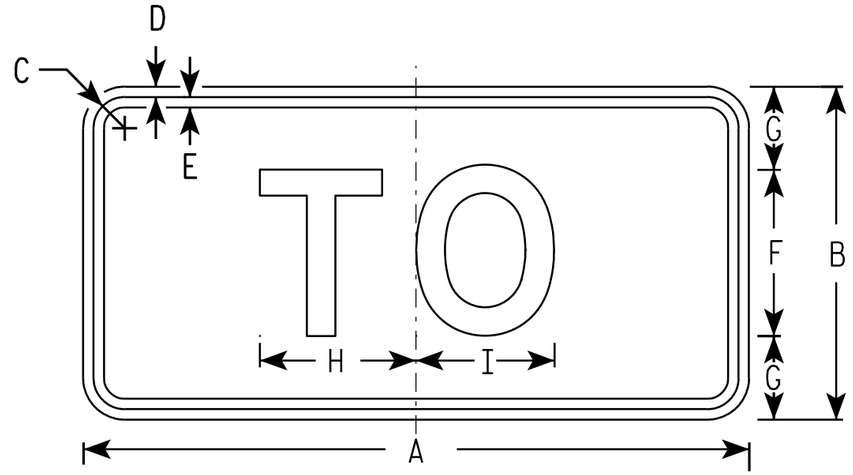
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

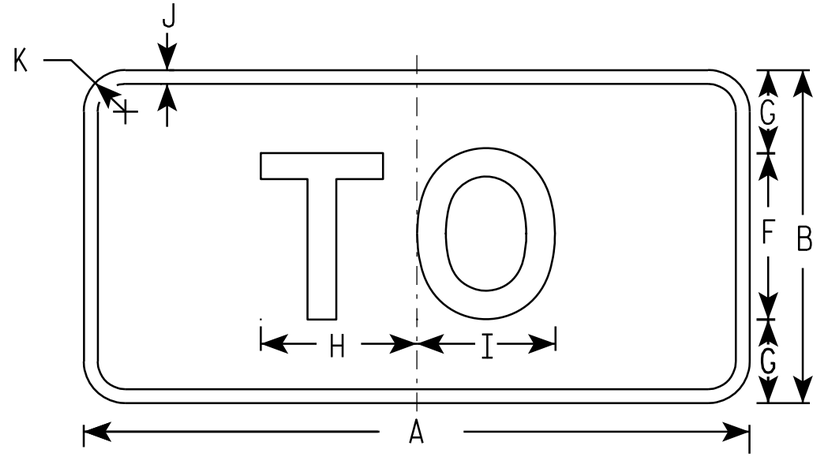
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 334	E



M4-5
MK4-5
MM4-5



MB4-5
MG4-5
MN4-5

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black
   MB4-5 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG4-5 Background - Green
   Message - White - Type H Reflective
   MK4-5 Background - Green
   Message - White - Type H Reflective
   MM4-5 Background - White - Type H Reflective
   Message - Green
   MN4-5 Background - Brown
   Message - White - Type H Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

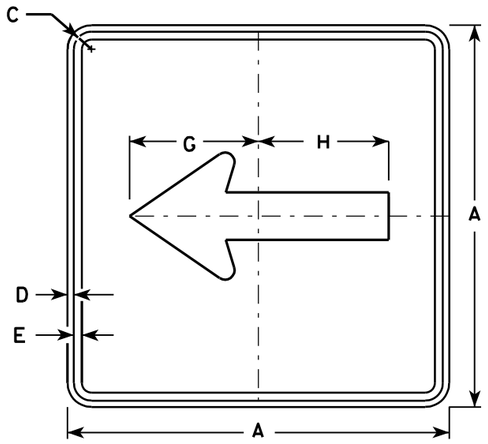
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

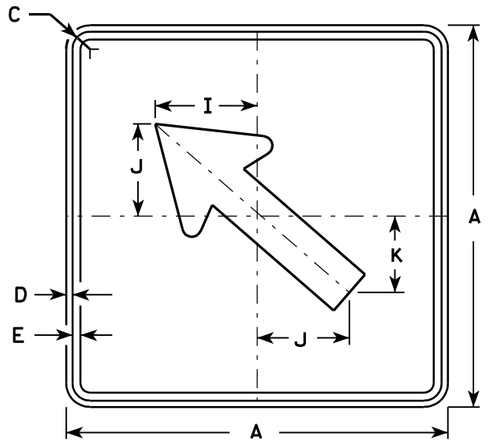
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-5.6

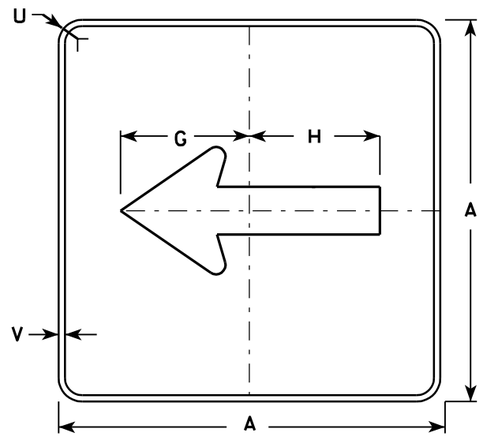
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 335 | E



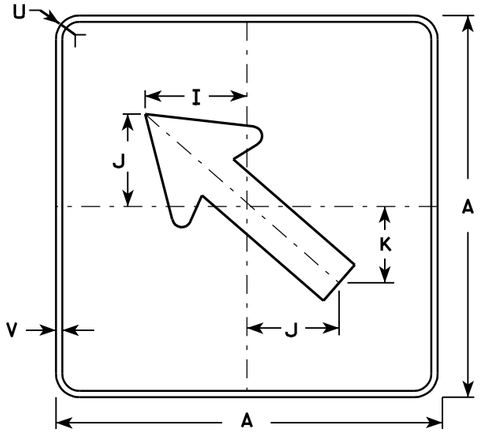
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

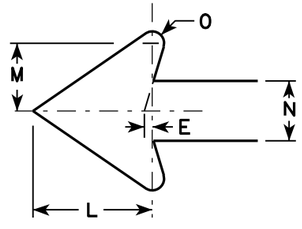
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

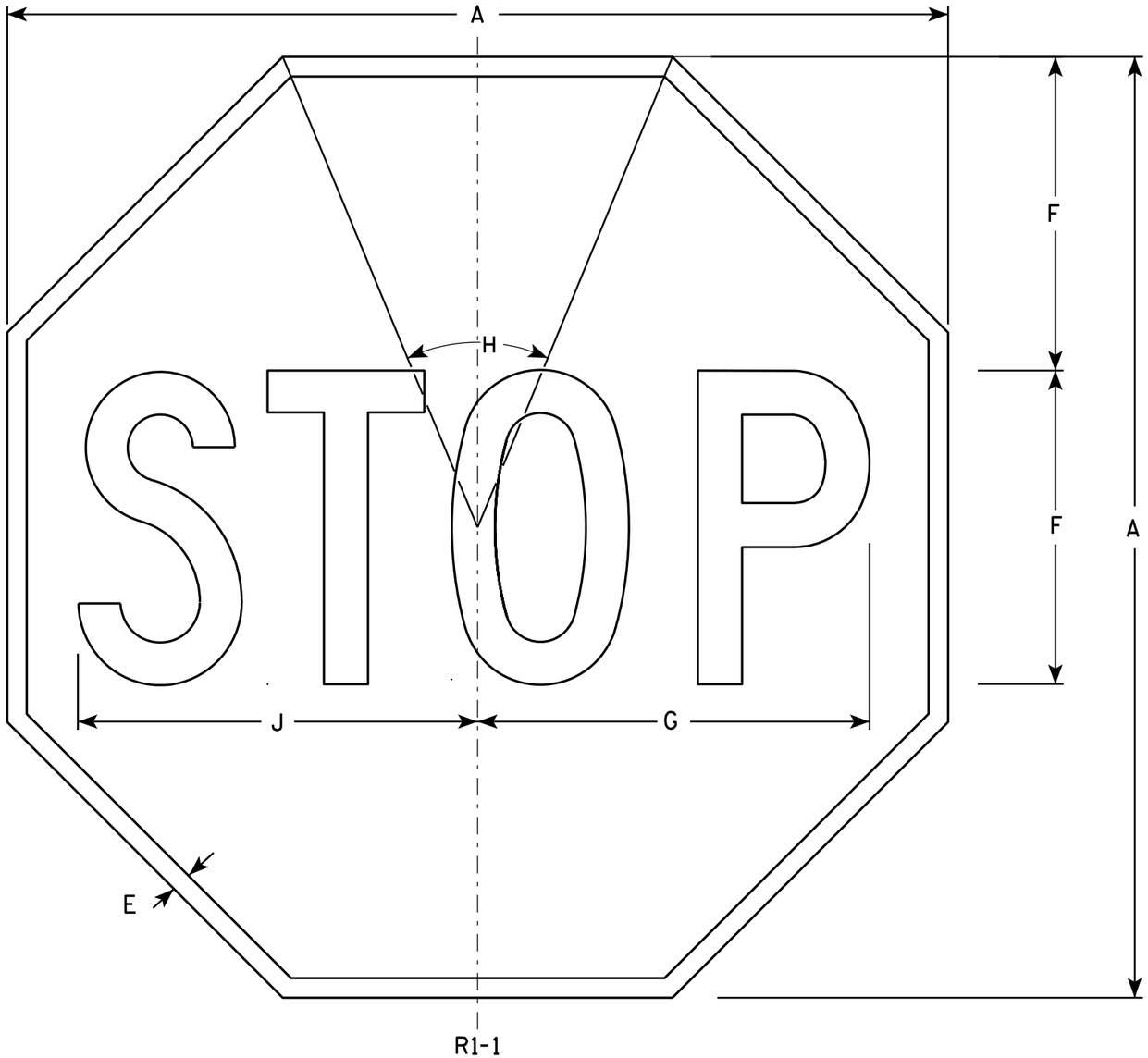
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 336	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

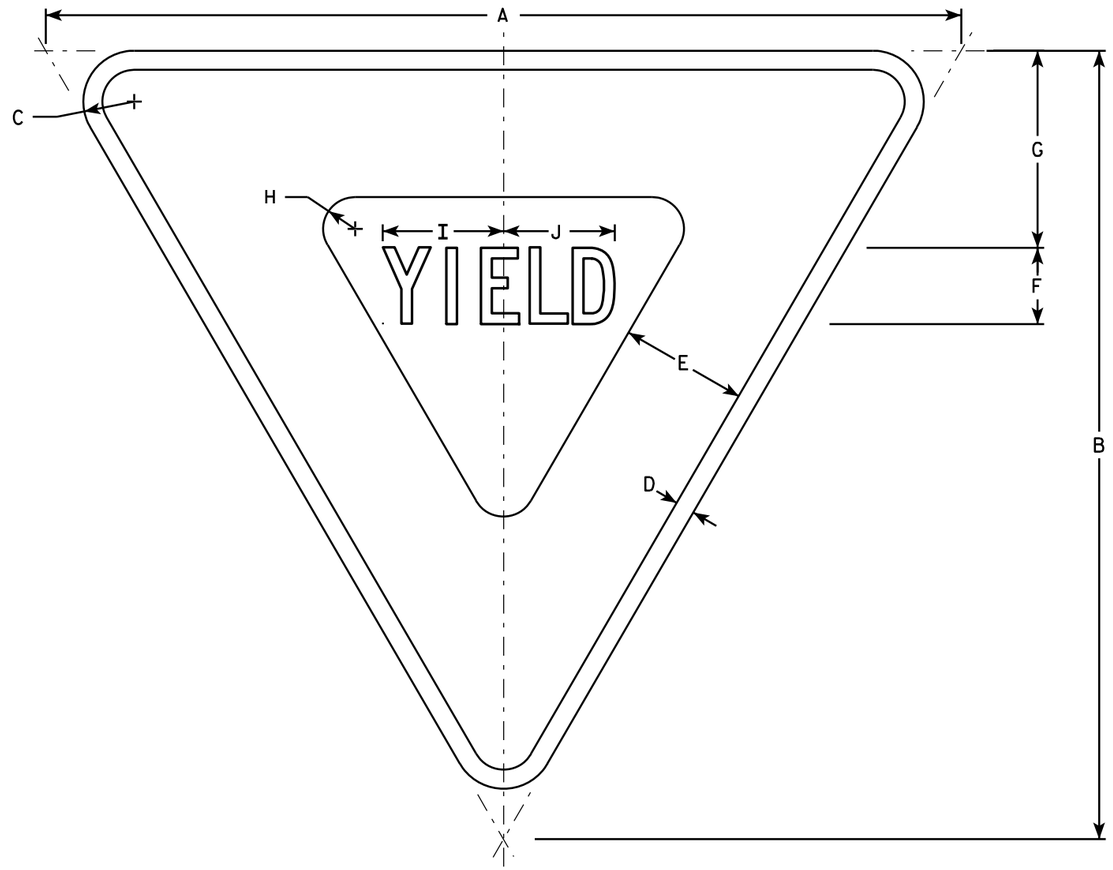
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 337	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

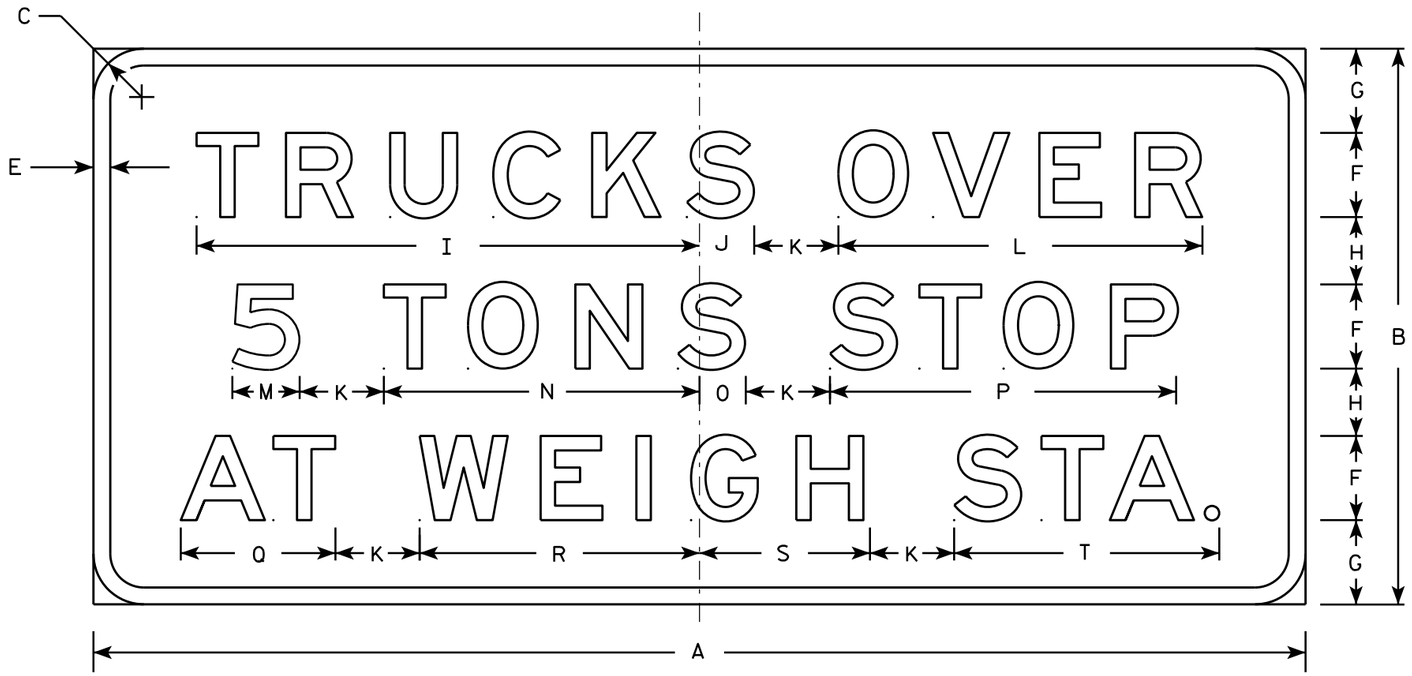
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 338 | E



R13-1

NOTES

1. Sign is Type I or Type II - Non-Reflective
2. Color:
   Background - Black (Non-reflective)
   Message - White Type H Reflective
3. Message Series - E
4. Corners may be square or rounded but borders shall be rounded as shown.
5. Code sizes 2 & 4 are Type II, Code size 5 is Type I. All code sizes have a non-reflective background.
6. Base material for Type II signs shall be plywood.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	90	36	3		1	6	5	4	36	3 7/8	6	26 1/8	4 3/4	22 3/4	3 1/4	25	11 1/8	19 7/8	12 1/4	19 1/2							22.5
2M	90	36	3		1	6	5	4	36	3 7/8	6	26 1/8	4 3/4	22 3/4	3 1/4	25	11 1/8	19 7/8	12 1/4	19 1/2							22.5
3																											
4	120	48	6		1	8	7	5	47 7/8	5 1/8	8	34 3/4	6 3/8	30 1/8	4 3/8	33 1/8	14 7/8	26 3/8	17 1/8	26 1/8							40.0
5	144	66	6		2	10	10	8	59 3/4	6 1/2	10	43 1/4	8	37 1/2	5 1/2	36 7/8	17 3/4	33 1/4	20 1/4	31 1/2							66.0

STANDARD SIGN
R13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

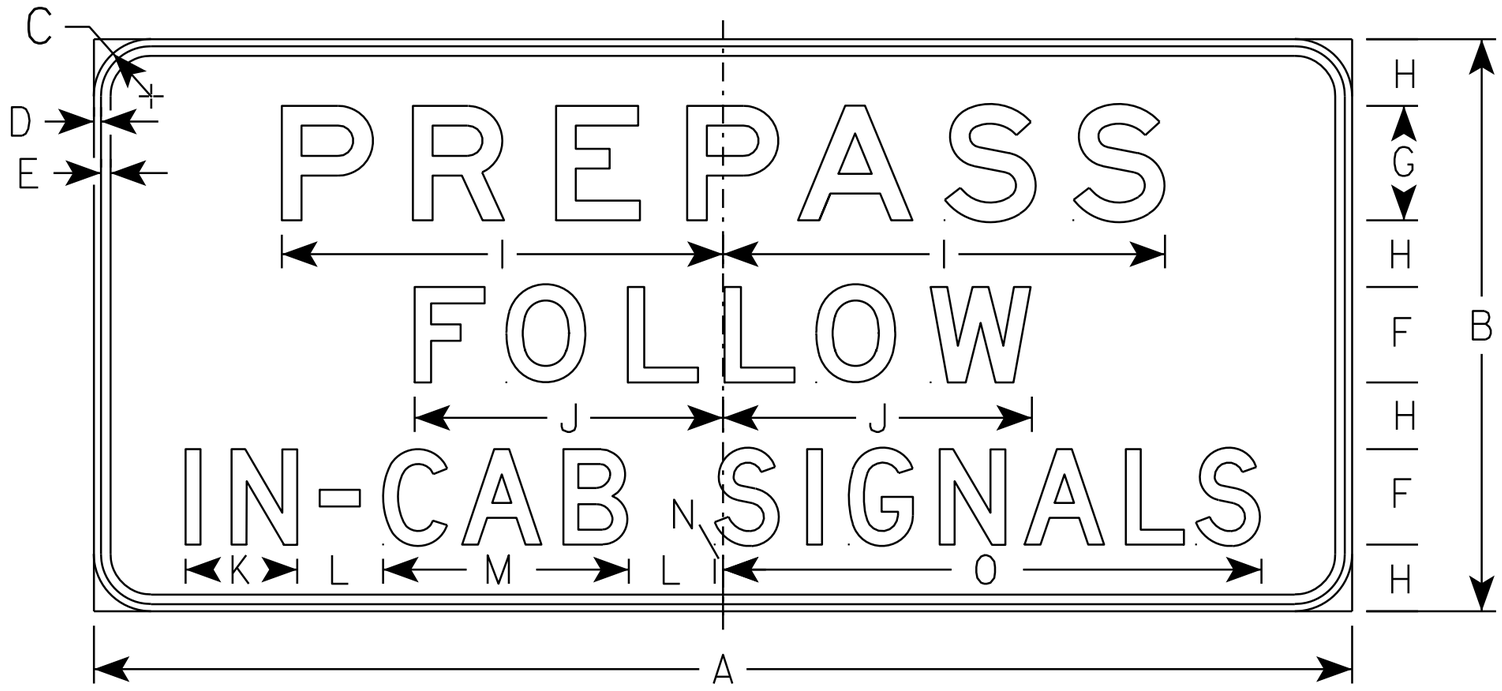
DATE 6/23/14 PLATE NO R13-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R131.DGN PLOT DATE : 23-JUN-2014 17:08 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 17.999037:1.000000
WISDOT/CADDS SHEET 42

NOTES

1. All Signs are Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Series E - Line 1 & 2
   Series C - Line 3



R13-49

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	132	60	6	¾	1	10	12	7	46 ¼	32 ⅜	11 ¾	9	25 ¾	⅞	56 ½												55.0
5																											

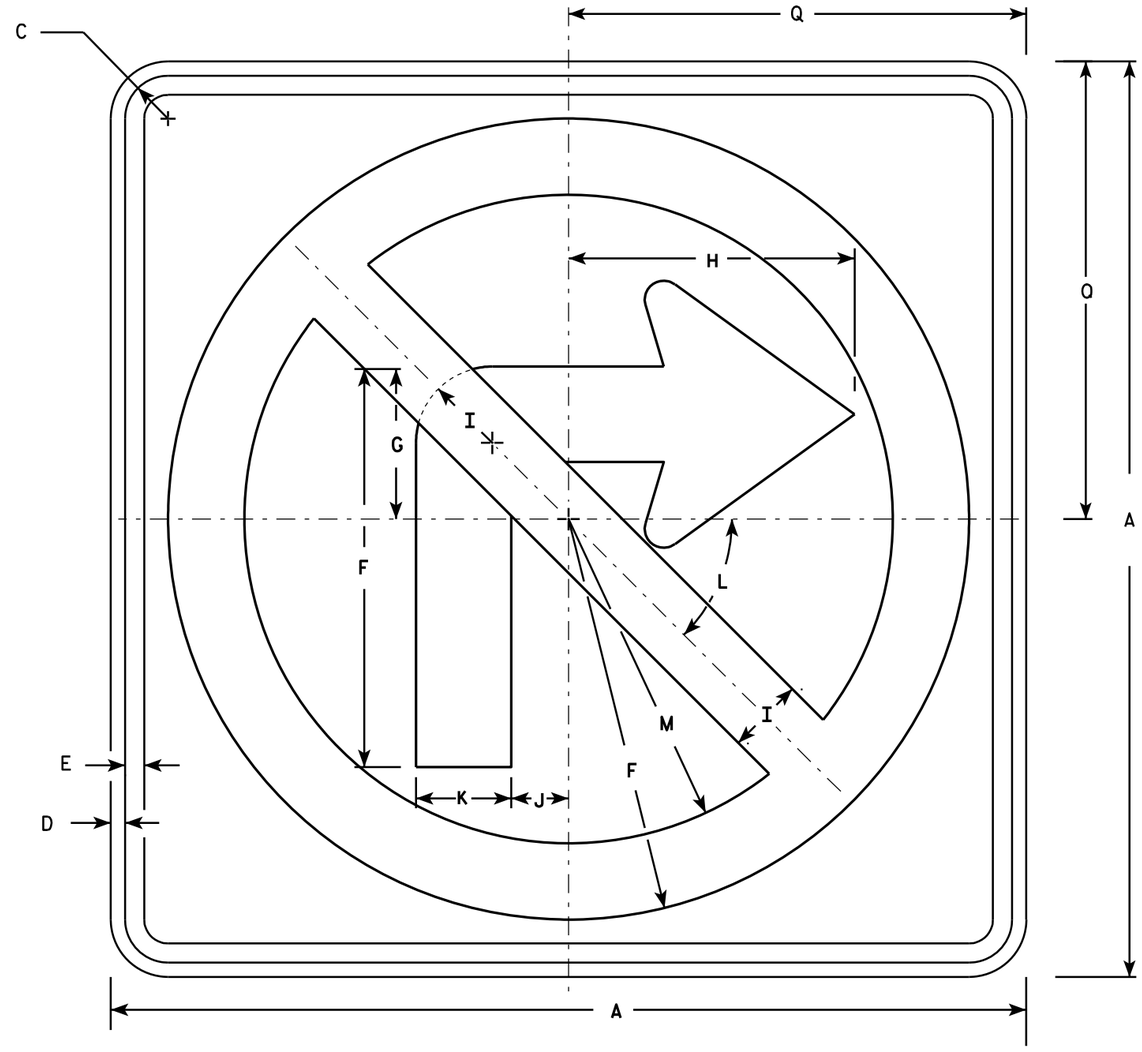
STANDARD SIGN
R13-49

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R13-49.3

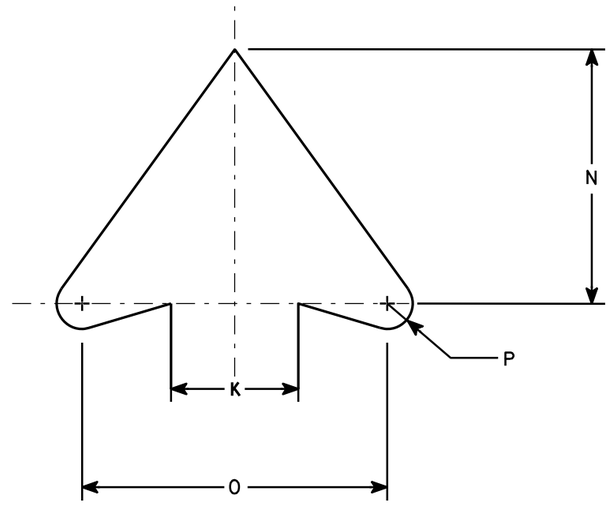
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 340	E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

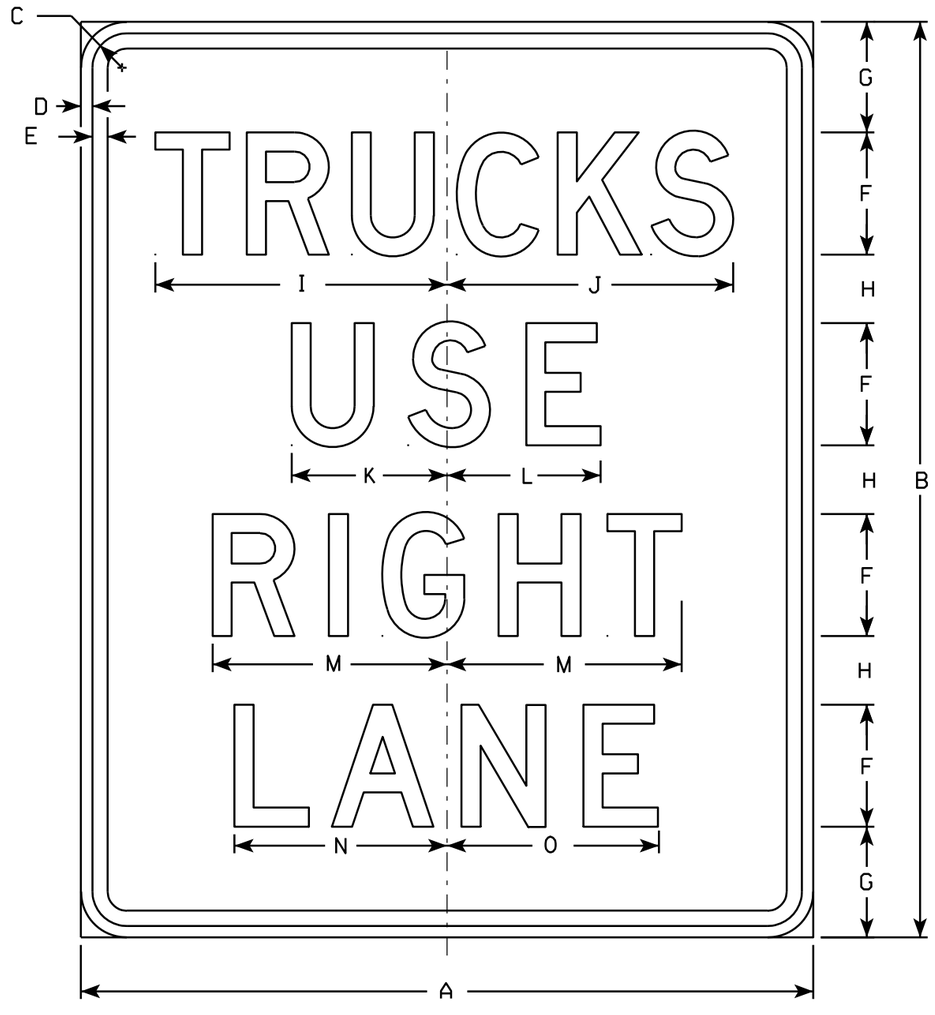
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 341	E

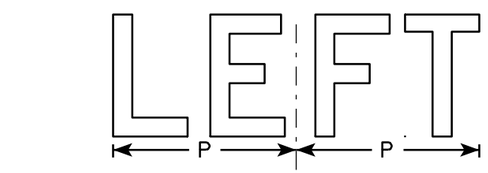


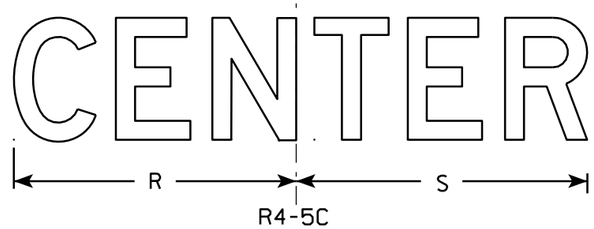
R4-5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R4-5L & R4-5C are the same as R4-5 except LEFT or CENTER replaces RIGHT as order by code.

R4-5L





R4-5C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
3																											
4	36	48	2 1/4	5/8	3/4	6	6	4	14 3/8	14 1/8	7 7/8	7 7/8	12 1/4	10 3/4	10 1/2	9 5/8		13 7/8	14 1/4								12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/8	18 3/4	10 1/4	10 1/8	15 3/8	14	13 7/8	12		18 1/2	19 1/8								20.0

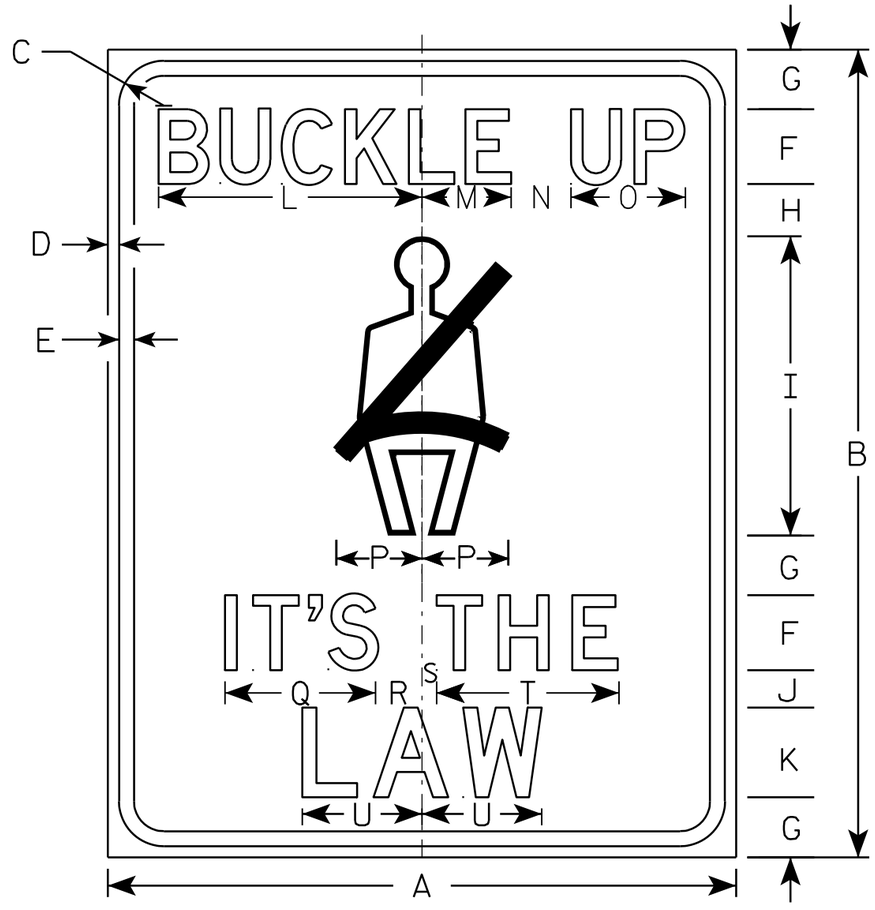
STANDARD SIGN
R4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-5.3

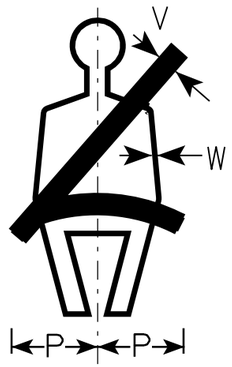
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 342	E



R5-53A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	24	1 1/8	3/8	3/8	2	1 3/4	1 1/2	9	1 1/4	3	6 3/4	2 1/4	1 1/2	2 7/8	2 1/2	3 7/8	1 1/4	3/8	4 5/8	3 7/8	5/8	1/8				3.00
2M	18	24	1 1/8	3/8	3/8	2	1 3/4	1 1/2	9	1 1/4	3	6 3/4	2 1/4	1 1/2	2 7/8	2 1/2	3 7/8	1 1/4	3/8	4 5/8	3 7/8	5/8	1/8				3.00
3																											
4																											
5	42	54	2 1/4	3/4	1	5	4	3 1/2	20	2 1/2	6	17 5/8	6	4	7 5/8	5 3/4	10	3 1/2	1	12 1/4	8	1 1/2	3/8				15.75

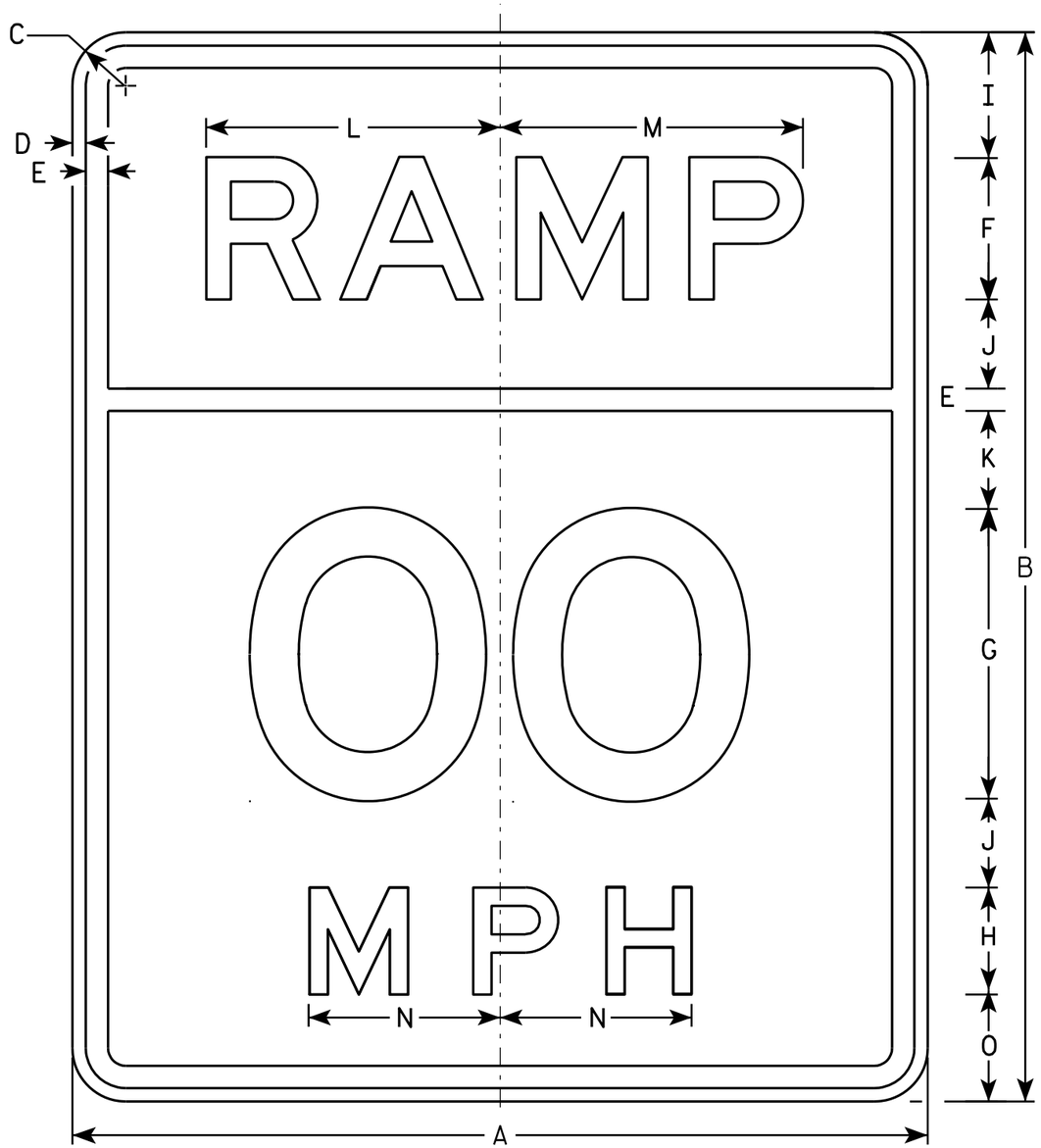
STANDARD SIGN
R5-53A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-53A.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 343	E



W13-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2S	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2M	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
3																											
4	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
5	48	60	2 1/4	3/4	1 1/4	8	16	6	7	5	5 3/4	16 1/2	17	10 5/8	6												20.0

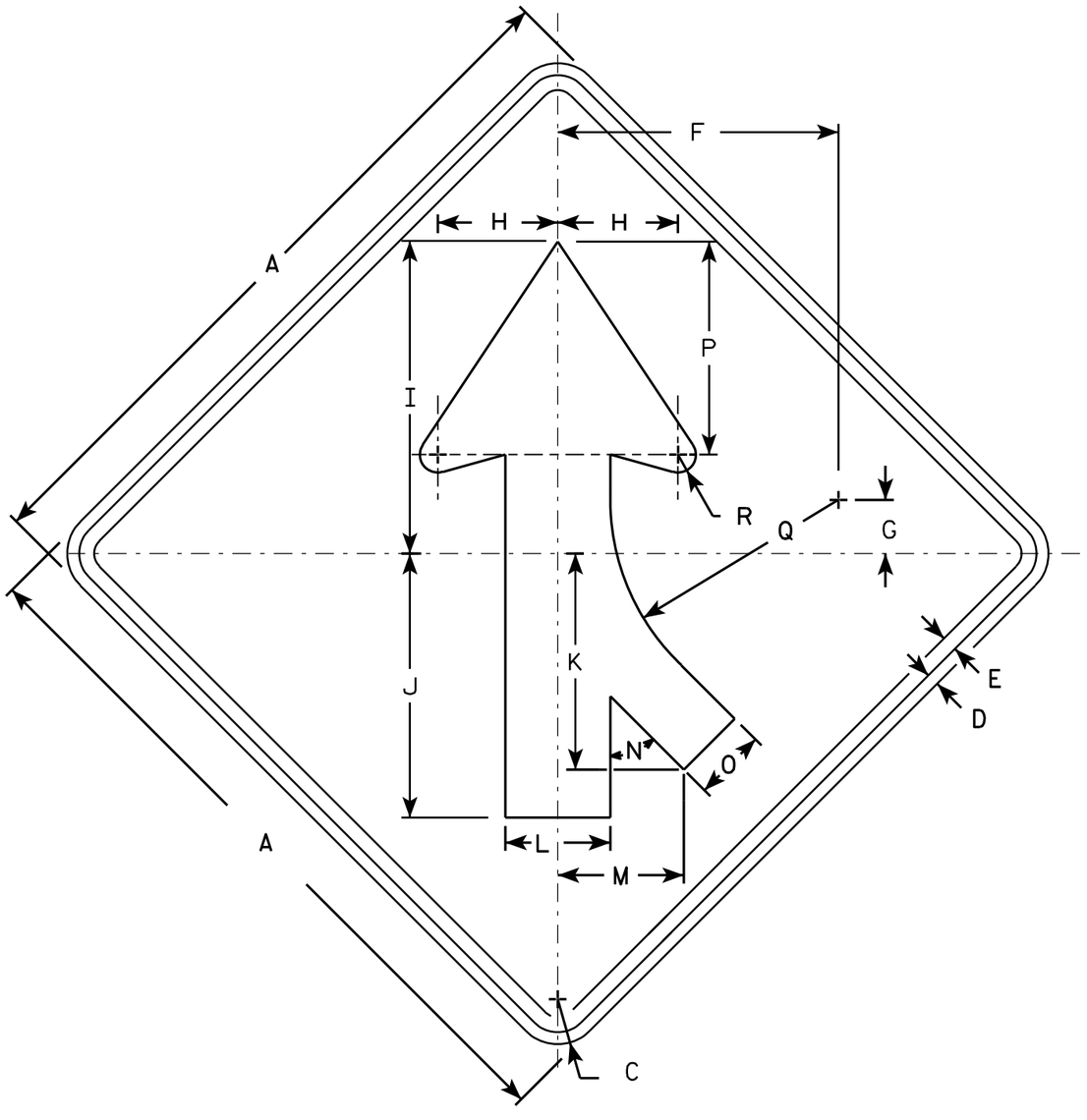
STANDARD SIGN
W13-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/13/13 PLATE NO. W13-3.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 344 | E



W4-1 R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

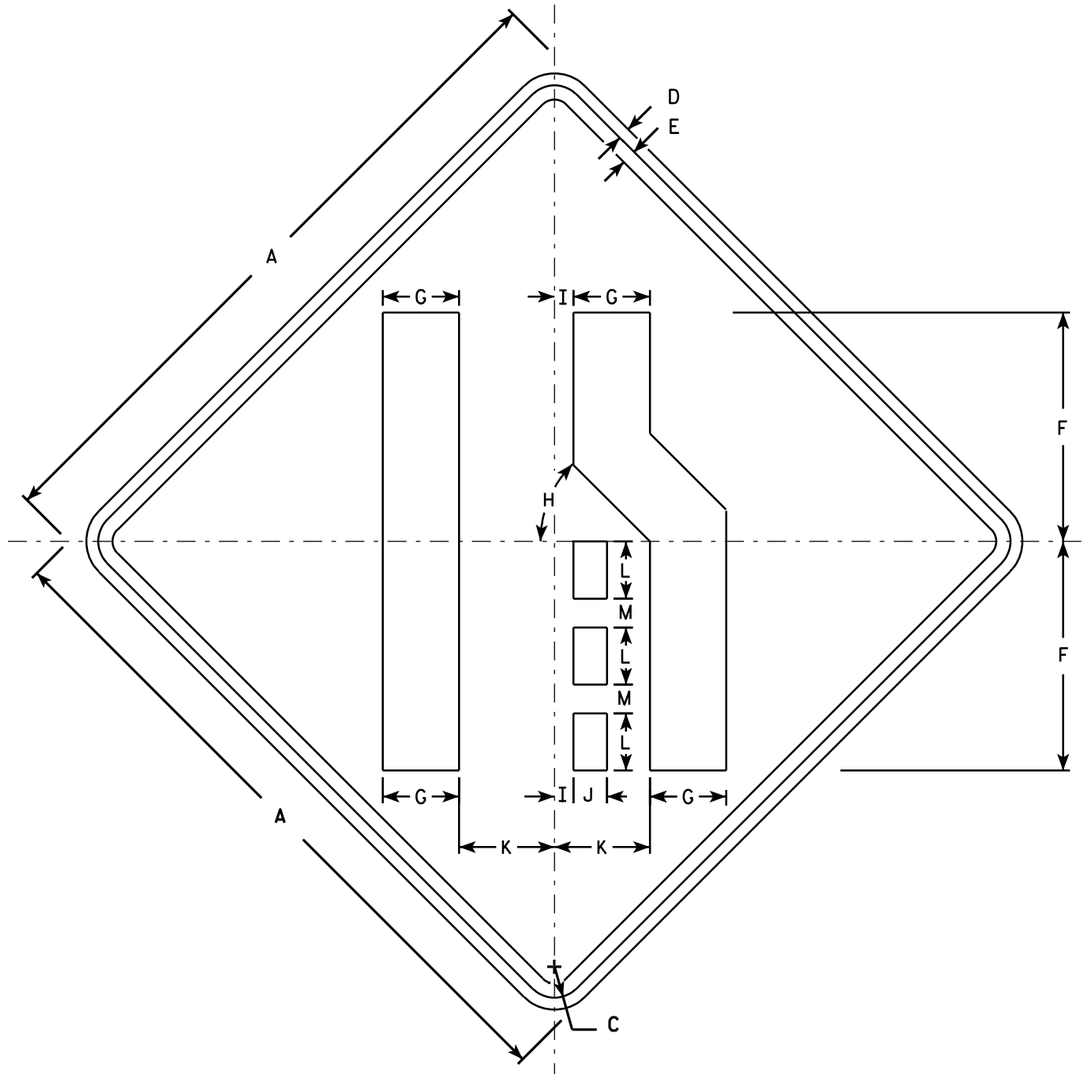
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 345	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

WISCONSIN DEPT OF TRANSPORTATION

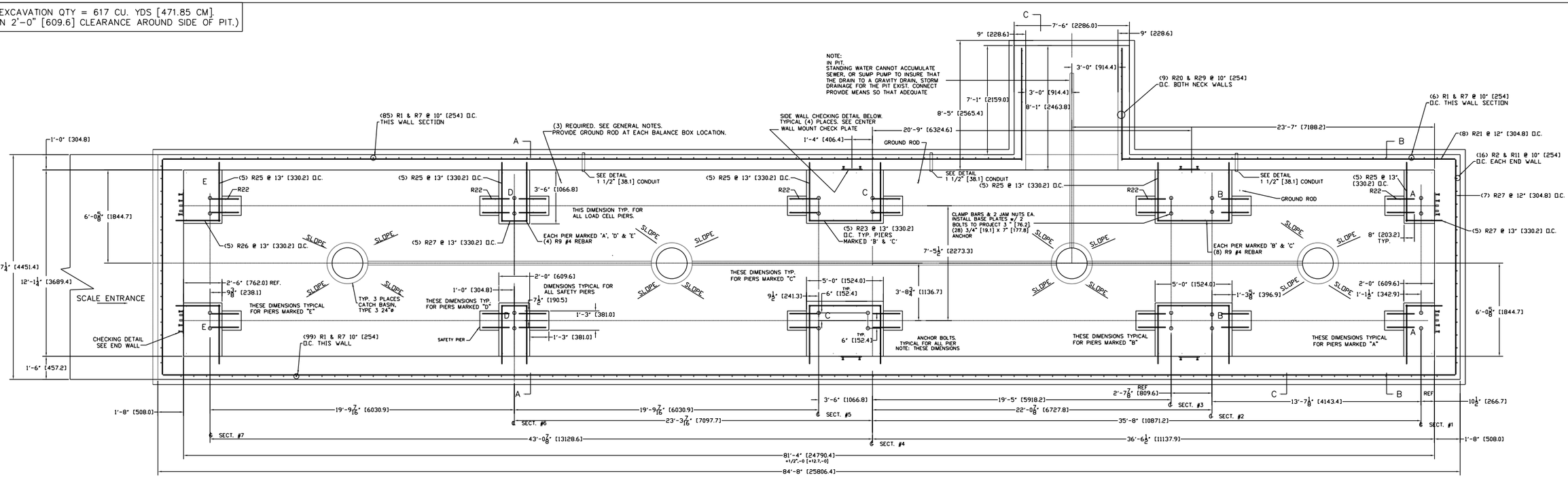
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

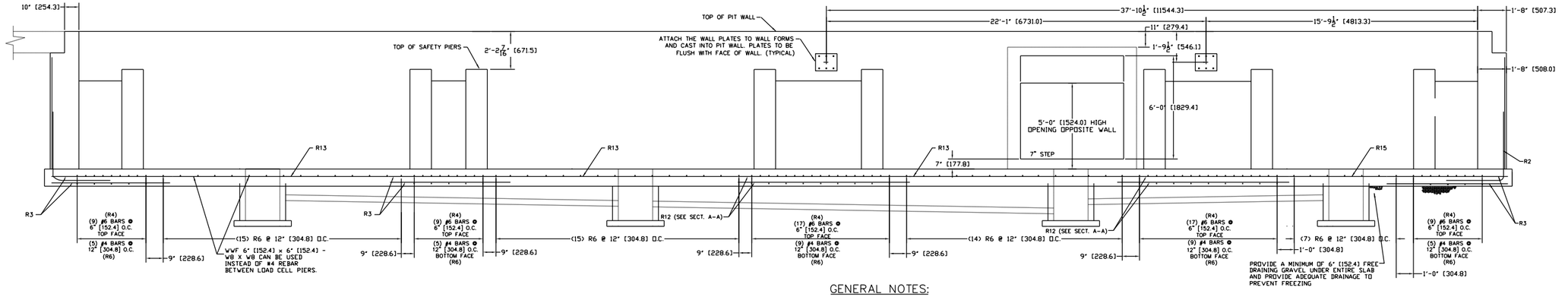
PROJECT NO:

SHEET NO: 346 E

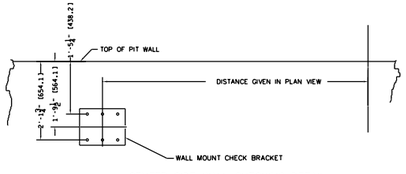
APPROX. EXCAVATION QTY = 617 CU. YDS [471.85 CM].
(BASED ON 2'-0" [609.6] CLEARANCE AROUND SIDE OF PIT.)



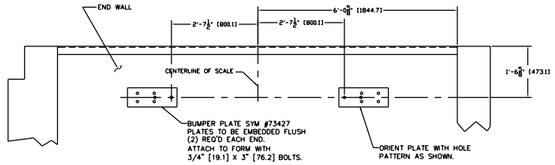
PLAN VIEW



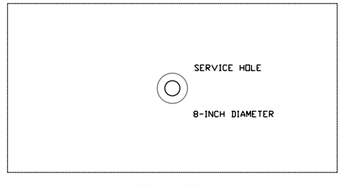
APPROX. CONCRETE REQ'D.		
SLAB/PIERS	57.69 CU. YDS.	[44.1 CM]
WALLS	75.78 CU. YDS.	[57.9 CM]
APPROACHES	27.00 CU. YDS.	[20.7 CM]
SLEEPER SLAB	3.61 CU. YDS.	[2.76 CM]
TOTAL W/O SAFETY PIERS	164.08 CU. YDS.	[125.46 CM]
TOTAL W/ SAFETY PIERS	168.78 CU. YDS.	[129.05 CM]



CENTER SIDE WALL CHECKING DETAIL



END WALL CHECKING DETAIL
TYPICAL FOR EACH END WALL



DECK 2 DETAIL
SERVICE HOLE PLACEMENT

GENERAL NOTES:

1. CONCRETE MASONRY SHALL CONFORM TO SECTION 501 OF THE STANDARD SPECIFICATIONS. USE 3500 PSI [281.2 K.SQ.CM.] CONCRETE @ 28 DAYS. CONCRETE SHALL BE A MIX DESIGN UTILIZING TYPE II PORTLAND CEMENT AND NORMAL WEIGHT AGGREGATES. NO FLY ASH WILL BE ALLOWED. MAXIMUM ALLOWABLE SLUMP SHALL BE 4-1/2" [114.3] CONCRETE TO BE MECHANICALLY VIBRATED TO INSURE PROPER CONSOLIDATION. USE 5-7% AIR ENTRAINMENT.
2. USE A MIX DESIGN WHICH WILL DEVELOP 4000 PSI [281.2 K. SQ. CM] STRENGTH IN 7 DAYS ON THE APROACHES.
3. REINFORCING BARS SHALL BE EPOXY COATED, CONFORMING TO SECTION 505 OF THE STANDARD SPECIFICATIONS. BEND BARS COLD TO CONFORM WITH REQUIRED DETAILS. REMOVE SCALE, LOOSE FLAKEY RUST, DIRT, AND OTHER COATING THAT WOULD IMPAIR BONDING. SPACE BARS PROPERLY AND TIE SECURELY IN POSITION BEFORE PLACING CONCRETE. TACK WELDING TO KEEP REINFORCING IN PLACE IS NOT PERMITTED.
4. ALL CONCRETE SURFACES SHALL BE FORMED WITH WOOD OR METAL FORMS USING APPROVED METHODS. NO CONCRETE VERTICAL SURFACES SHALL BE POURED AGAINST DIRT.
5. MAKE 3 CONCRETE TEST CYLINDERS, LABEL WITH POUR DATE AND DESCRIPTION OF POUR. WRAP CYLINDERS IN 6 MIL POLY.
6. WORK FROM CENTERLINES WHEN ERECTING FORMS AND PLACING FOUNDATION EMBEDMENTS. PLACE EMBEDMENTS TO WITHIN 1/8-INCH OF POSITIONS INDICTED ON DRAWING. (EMBEDMENTS MUST BE PLACED WITHIN 1/8-INCH OF TOTAL DIMENSIONS FROM CENTERLINE OF SCALE.)
7. FOR SETTING PLAN, SEE DRAWING DMM74752-SP.
8. BOTTOM OF SCALE PIT SHOULD BE SUPPORTED ON NON-EXPANSIVE WELL DRAINED MATERIAL CAPABLE OF SAFELY SUPPORTING 1000 PSF [4882.4 K.SQ.M.].
9. SUITABLE CONDUIT FOR LOW VOLTAGE CONDUCTOR SHIELDED CABLE SHALL PASS THRU THE SCALE PIT WALL AS INDICATED ON THIS DRAWING. CONDUIT SHALL EXTEND BEYOND SCALE PIT WALL A MINIMUM OF 2 INCHES.
10. ALL BACKFILL SHALL BE PLACED IN 8-INCH LIFTS AND COMPACTED TO 95F MAXIMUM. DENSITY PER ASTM 1557. ALL WORK TO BE IN ACCORDANCE WITH ACI 301.
11. PROVIDE MEANS SO THAT ADEQUATE DRAINAGE IN THE PIT EXISTS. CONNECT THE DRAINS TO A GRAVITY DRAIN, STORM SEWER, OR SUMP PUMP TO INSURE THAT STANDING WATER CANNOT ACCUMULATE IN SCALE PIT. SUMPS TO HAVE SLOTTED COVERS.

ALL DIMENSIONS IN [MM] UNLESS OTHERWISE NOTED

LET	BY	DATE	REVISION
			MADE FROM DMM74752-RPM

name: 15' [4572]-23' [7010.4]-43' [13106.4]x12' [3657.6] HIGHWAY SYSTEM REINFORCED PIT-9' FT [2743.2] DEEP CAP. 100 TON [101.605 M.T.] 70K CLC 7 SECTION

date: 11/7/03 material:

Unless otherwise specified: dimensions are in inches; tolerances: fractions: ±1/8; Angles: ± 1° (.01753); 3 place decimals: ±.010; 2 place decimals: ±.030; Hole diameter: ±1/32"(.8)

scale: N/A in per ft. sheet 1 - -

drawn by CB

MODEL #f - - - -JRC-SP

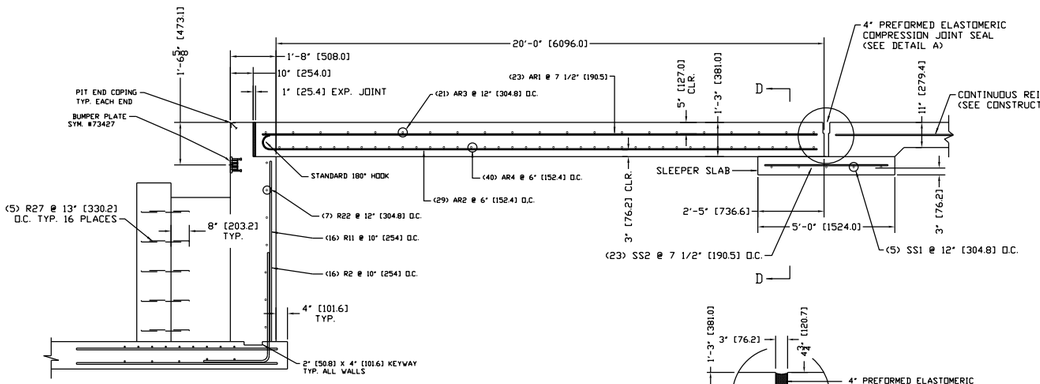
checked by

approved by

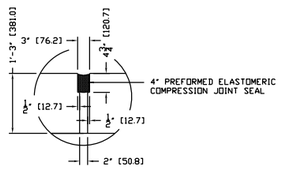
DMM74752-RPM-A

MATERIAL FINISH

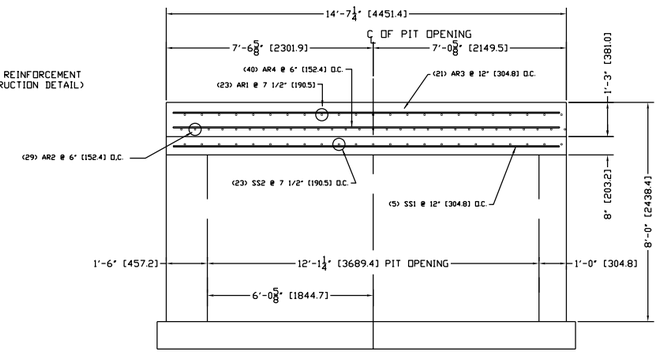
PROJECT NO: 1190-43-71 HWY: USH 2 / 53 SUPERIOR SWEF



END WALL AND APPROACH
TYPICAL EACH END

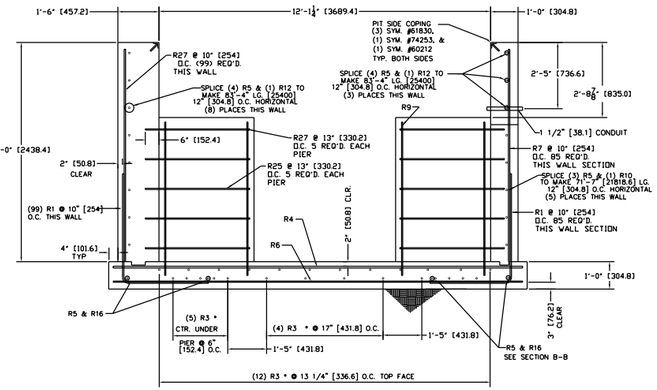


DETAIL A



APPROACH/SLEEPER SLAB SECT 'D' - 'D'

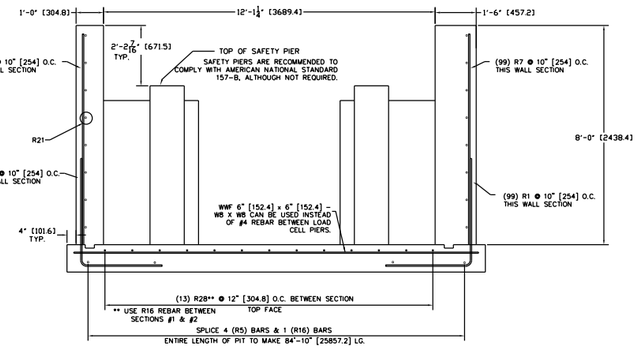
REINFORCING BAR SCHEDULE					
SYM.	QTY.	SIZE	LENGTH	BENDING	WEIGHT
R1	190	#6	6'-0" [914.4]	3'-0" [914.4] 3'-0" [914.4]	1712 [776.7 KG]
R2	32	#6	5'-0" [1524]	3'-0" [914.4] 2'-0" [609.6]	240 [109 KG]
R3	104	#4	7'-0" [2133.6]	7'-0" [2133.6]	486 [220.6 KG]
R4	61	#6	14'-8" [4470.4]	14'-8" [4470.4]	1343.8 [609.5 KG]
R5	75	#4	20'-0" [6096]	20'-0" [6096]	1002 [454 KG]
R6	84	#4	14'-8" [4470.4]	14'-8" [4470.4]	823 [373.3 KG]
R7	190	#4	7'-9" [2362.2]	7'-9" [2362.2]	1535.8 [696.6]
R8	46	#4	4'-0" [1219]	2'-0" [609.6] 2'-0" [609.6]	122.9 [55.8 KG]
R9	40	#4	5'-6" [1676.4]	5'-6" [1676.4]	147 [66.7 KG]
R10	5	#4	16'-7" [5054.6]	16'-7" [5054.6]	55.4 [25.1 KG]
R11	32	#4	6'-6" [1981.2]	6'-6" [1981.2]	141.1 [64 KG]
R12	63	#4	10'-0" [3048]	10'-0" [3048]	420.8 [190.9 KG]
R13	64	#4	6'-0" [1828.8]	6'-0" [1828.8]	256.5 [116.4 KG]
R14	8	#5	8'-9" [2667]	8'-9" [2667]	73 [33.1 KG]
R15	24	#4	4'-0" [1219.2]	4'-0" [1219.2]	64.1 [29.1 KG]
R16	17	#4	11'-0" [3352.8]	11'-0" [3352.8]	124.9 [56.7 KG]
R17	6	#4	9'-0" [2743.2]	9'-0" [2743.2]	36.1 [16.4 KG]
R18	9	#4	6'-4" [1930.4]	6" [152.4] 32" [812.8] 32" [812.8] 6" [152.4]	38.1 [17.2 KG]
R19	9	#4	7'-7" [2311.4]	7'-7" [2311.4]	45.6 [20.6 KG]
R20	18	#5	3'-0" [914.4]	3'-0" [914.4]	56.3 [25.5 KG]
R21	8	#4	5'-5" [1651]	5'-5" [1651]	29 [13.2 KG]
R22	20	#4	14'-1" [4292.6]	14'-1" [4292.6]	131.7 [59.7 KG]
R23	20	#4	4'-6" [1371.6]	4'-6" [1371.6]	60.1 [27.3 KG]
R24	18	#4	6'-3" [1905]	6'-3" [1905]	75.2 [34.1 KG]
R25	10	#4	2'-9" [838.2]	2'-9" [838.2]	18.4 [8.3 KG]
R26	10	#4	2'-10" [863.6]	2'-10" [863.6]	19 [8.6 KG]
R27	100	#4	1'-8" [508]	1'-8" [508]	111.3 [55 KG]
R28	39	#4	16'-0" [4876.8]	16'-0" [4876.8]	416.8 [189.1 KG]
				TOTAL	9,685.9 [4352.5 KG]
APPROACHES & SLEEPER SLABS					
AR1	46	#5	20'-3" 6172.2]	20'-3" 6172.2]	972 LB [441 KG]
AR2	58	#5	20'-10" [6350]	20'-10" [6350]	1260 LB [573 KG]
AR3	42	#5	14'-1" [4292.6]	14'-1" [4292.6]	617 LB [280 KG]
AR4	80	#5	14'-1" [4292.6]	14'-1" [4292.6]	1175 LB [534 KG]
SS1	10	#5	14'-1" [4292.6]	14'-1" [4292.6]	147 LB [67 KG]
SS2	46	#5	4'-6" [1371.6]	4'-6" [1371.6]	216 LB [98 KG]
				TOTAL	4387 LB [1993 KG]



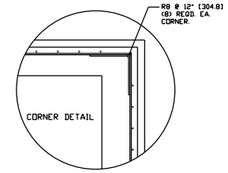
SECTION A-A
TYPICAL (3) PLACES
SECTION #1, #6, & #7

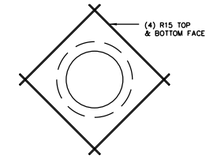
* USE R12 REBAR ON PIERS WITH 2 LOAD CELLS, SECTION #2/#3 & #4/#5

NOTE: END AND CENTER SECTIONS IN ADDITION TO BARS SHOWN ON SECTION B-B

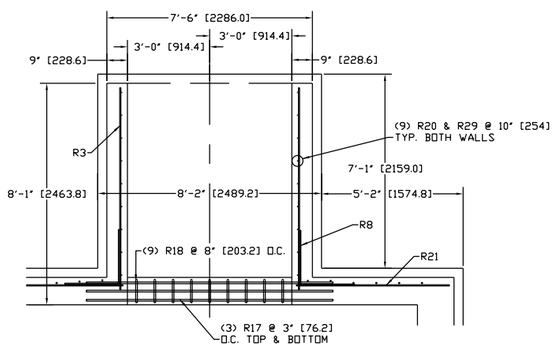


SECTION B-B

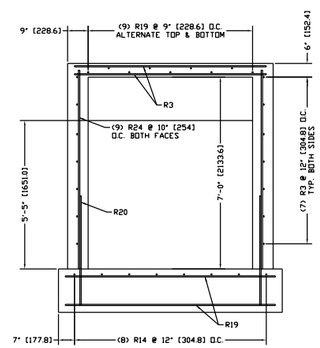




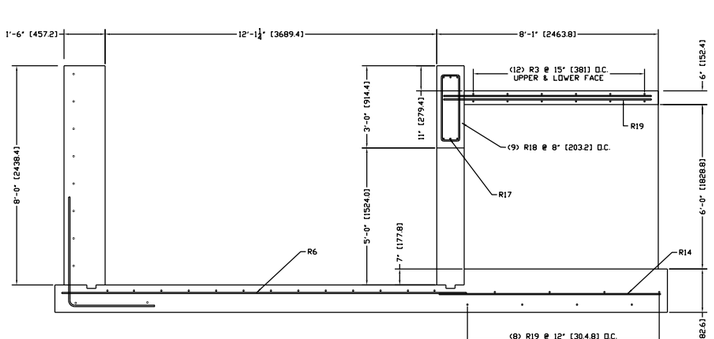
SUMP PUMP REINFORCING



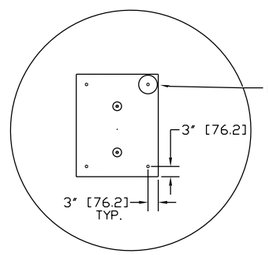
NECK PLAN



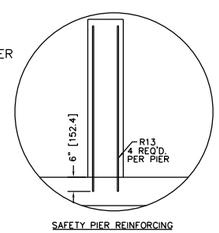
NECK DETAIL



SECTION C-C



PIER REINFORCING
SEE SCHEDULE FOR LENGTH



SAFETY PIER REINFORCING

ALL DIMENSIONS IN [MM] UNLESS OTHERWISE NOTED

LCT	BY	DATE	REVISION
			MADE FROM DMM74752-RPM

name: 15' [4572]-23' [7010.4]-43' [13106.4]x12' [3657.6] HIGHWAY SYSTEM REINFORCED PIT-9' FT [2743.2] DEEP CAP. 100 TON [101.605 M.T] 70K CLC 7 SECTION

date: 11/7/03 material:

Unless otherwise specified dimensions are in inches Tolerances: Fractions: ±1/8" Angles 1° [3175] 2 place decimals: ±1 place decimals: Hole diameter: ±1/32"[1.8]

scale: N/A in. per ft. sheet 2 of 2

drawn by CB

checked by

approved by

MATERIAL FINISH

080102_scale.dgn

PROJECT NO: 1190-43-71 HWY: USH 2/53 SUPERIOR SWEF STATIC SCALE PIT

EARTHWORK - LINE "S"

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	ACCUM. VOLUME CUT (C.Y.)	ACCUM. VOLUME FILL (C.Y.)	ACCUM. VOLUME EXPANDED FILL (C.Y.)
31500	0.0	334.0					
			89.8	490.7	89.8	490.7	613.4
31550	97.0	196.0					
			203.7	327.8	293.5	818.5	1023.1
31600	123.0	158.0					
			250.0	356.5	543.5	1175.0	1468.8
31650	147.0	227.0					
			275.0	374.1	818.5	1549.1	1936.4
31700	150.0	177.0					
			270.4	265.7	1088.9	1814.8	2268.5
31750	142.0	110.0					
			253.7	336.1	1342.6	2150.9	2688.6
31800	132.0	253.0					
			2.4	4.7	1345.0	2155.6	2694.5
31801	0.0	0.0					

EARTHWORK - LINE "N"

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	ACCUM. VOLUME CUT (C.Y.)	ACCUM. VOLUME FILL (C.Y.)	ACCUM. VOLUME EXPANDED FILL (C.Y.)
30100	47.0	136.0					
			111.1	329.6	111.1	329.6	412.0
30150	73.0	220.0					
			138.9	438.0	250.0	767.6	959.5
30200	77.0	253.0					
			144.4	483.3	394.4	1250.9	1563.6
30250	79.0	269.0					
			145.4	482.4	539.8	1733.3	2166.6
30300	78.0	252.0					
			140.7	439.8	680.5	2173.1	2716.4
30350	74.0	223.0					
			116.7	353.7	797.2	2526.8	3158.5
30400	52.0	159.0					
			1.0	2.9	798.2	2529.7	3162.1
30401	0.0	0.0					

EARTHWORK - LINE "I"

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	ACCUM. VOLUME CUT (C.Y.)	ACCUM. VOLUME FILL (C.Y.)	ACCUM. VOLUME EXPANDED FILL (C.Y.)
30350	135.0	496.0					
			270.4	999.1	270.4	999.1	1248.9
30400	157.0	583.0					
			290.7	1074.1	561.1	2073.2	2591.5
30450	157.0	577.0					
			288.9	1056.5	850.0	3129.7	3912.1
30500	155.0	564.0					
			275.0	955.6	1125.0	4085.3	5106.6
30550	142.0	468.0					
			278.7	942.6	1403.7	5027.9	6284.9
30600	159.0	550.0					
			324.1	1042.6	1727.8	6070.5	7588.1
30650	191.0	576.0					
			360.2	1025.9	2088.0	7096.4	8870.5
30700	198.0	532.0					
			350.9	937.0	2438.9	8033.4	10041.8
30750	181.0	480.0					
			357.4	944.4	2796.3	8977.8	11222.3
30800	205.0	540.0					
			391.7	983.3	3188.0	9961.1	12451.4
30850	218.0	522.0					
			403.7	878.7	3591.7	10839.8	13549.8
30900	218.0	427.0					
			402.8	774.1	3994.5	11613.9	14517.4
30950	217.0	409.0					
			403.7	813.0	4398.2	12426.9	15533.6
31000	219.0	469.0					
			350.0	761.1	4748.2	13188.0	16485.0
31050	159.0	353.0					
			294.4	690.7	5042.6	13878.7	17348.4
31100	159.0	393.0					
			332.4	840.7	5375.0	14719.4	18399.3
31150	200.0	515.0					
			370.4	988.0	5745.4	15707.4	19634.3
31200	200.0	552.0					
			370.4	1057.4	6115.8	16764.8	20956.0
31250	200.0	590.0					
			366.7	1185.2	6482.5	17950.0	22437.5
31300	196.0	690.0					
			327.8	1209.3	6810.3	19159.3	23949.1
31350	158.0	616.0					
			2.9	11.4	6813.2	19170.7	23963.4
31351	0.0	0.0					

LEVELS ON • 9. 3. 4. 5. 6. 7. 8. 9. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63

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STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	QUANTITIES - EARTHWORK	SCALE, FEET 0	SHEET NO: 349	E

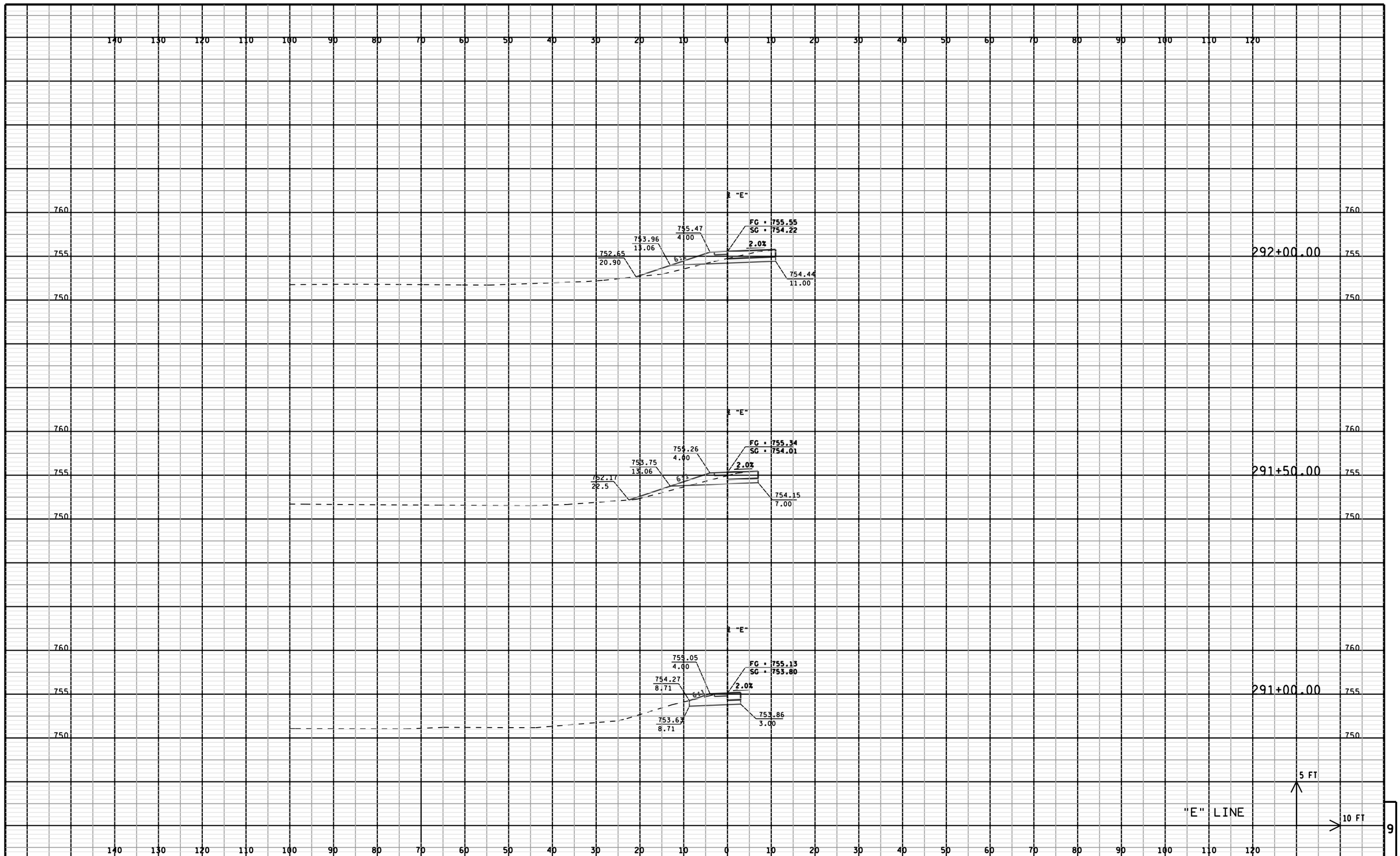
EARTHWORK - LINE "W"

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	ACCUM. VOLUME CUT (C.Y.)	ACCUM. VOLUME FILL (C.Y.)	ACCUM. VOLUME EXPANDED FILL (C.Y.)
28500	7.0	0.0					
			14.8	0.0	14.8	0.0	0.0
28550	9.0	0.0					
			18.5	0.0	33.3	0.0	0.0
28600	11.0	0.0					
			23.1	0.0	56.4	0.0	0.0
28650	14.0	0.0					
			29.6	0.0	86.0	0.0	0.0
28700	18.0	0.0					
			35.2	0.0	121.2	0.0	0.0
28750	20.0	0.0					
			38.9	1.9	160.1	1.9	2.4
28800	22.0	2.0					
			38.0	8.3	198.1	10.2	12.8
28850	19.0	7.0					
			35.2	17.6	233.3	27.8	34.8
28900	19.0	12.0					
			35.2	21.3	268.5	49.1	61.4
28950	19.0	11.0					
			34.3	19.4	302.8	68.5	85.6
29000	18.0	10.0					
			33.3	17.6	336.1	86.1	107.6
29050	18.0	9.0					
			34.3	17.6	370.4	103.7	129.6
29100	19.0	10.0					
			34.3	18.5	34.3	18.5	23.1
29150	18.0	10.0					
			33.3	20.4	67.6	38.9	48.6
29200	18.0	12.0					
			33.3	25.9	100.9	64.8	81.0
29250	18.0	16.0					
			32.4	33.3	133.3	98.1	122.6
29300	17.0	20.0					
			32.4	38.9	165.7	137.0	171.3
29350	18.0	22.0					
			34.3	41.7	200.0	178.7	223.4
29400	19.0	23.0					
			35.2	46.3	235.2	225.0	281.3
29450	19.0	27.0					
			26.9	52.8	262.1	277.8	347.3
29500	10.0	30.0					
			21.3	64.8	283.4	342.6	428.3
29550	13.0	40.0					
			33.3	88.0	316.7	430.6	538.3
29600	23.0	55.0					
			51.9	114.8	368.6	545.4	681.8
29650	33.0	69.0					
			62.0	145.4	430.6	690.8	863.5
29700	34.0	88.0					
			72.2	177.8	502.8	868.6	1085.8
29750	44.0	104.0					
			89.8	192.6	592.6	1061.2	1326.5
29800	53.0	104.0					
			105.6	189.8	698.2	1251.0	1563.8
29850	61.0	101.0					
			123.1	211.1	821.3	1462.1	1827.6
29900	72.0	127.0					
			138.9	258.3	960.2	1720.4	2150.5
29950	78.0	152.0					
			150.9	318.5	1111.1	2038.9	2548.6
30000	85.0	192.0					
			132.4	377.8	1243.5	2416.7	3020.9
30050	58.0	216.0					
			108.3	388.0	1351.8	2804.7	3505.9
30100	59.0	203.0					
			106.5	327.8	1458.3	3132.5	3915.6
30150	56.0	151.0					
			126.9	269.4	1585.2	3401.9	4252.4
30200	81.0	140.0					
			150.9	283.3	1736.1	3685.2	4606.5
30250	82.0	166.0					
			153.7	336.1	1889.8	4021.3	5026.6
30300	84.0	197.0					
			153.7	369.4	2043.5	4390.7	5488.4
30350	82.0	202.0					
			153.7	383.3	2197.2	4774.0	5967.5
30400	84.0	212.0					
			163.0	434.3	2360.2	5208.3	6510.4
30450	92.0	257.0					
			159.3	448.1	2519.5	5656.4	7070.5
30500	80.0	227.0					
			150.9	447.2	2670.4	6103.6	7629.5
30550	83.0	256.0					
			152.8	440.7	2823.2	6544.3	8180.4
30600	82.0	220.0					
			145.4	375.0	2968.6	6919.3	8649.1
30650	75.0	185.0					
			131.5	300.0	3100.1	7219.3	9024.1
30700	67.0	139.0					
			130.6	239.8	3230.7	7459.1	9323.9
30750	74.0	120.0					
			138.9	187.0	3369.6	7646.1	9557.6
30800	76.0	82.0					
			139.8	115.7	3509.4	7761.8	9702.3
30850	75.0	43.0					
			138.0	101.9	3647.4	7863.7	9829.6
30900	74.0	67.0					
			135.2	145.4	3782.6	8009.1	10011.4
30950	72.0	90.0					
			132.4	188.0	3915.0	8197.1	10246.4
31000	71.0	113.0					
			130.6	201.9	4045.6	8399.0	10498.8
31050	70.0	105.0					
			127.8	213.0	4173.4	8612.0	10765.0
31100	68.0	125.0					
			125.0	255.6	4298.4	8867.6	11084.5
31150	67.0	151.0					
			122.2	295.4	4420.6	9163.0	11453.8
31200	65.0	168.0					
			119.4	319.4	4540.0	9482.4	11853.0
31250	64.0	177.0					
			116.7	325.0	4656.7	9807.4	12259.3
31300	62.0	174.0					
			113.9	317.6	4770.6	10125.0	12656.3
31350	61.0	169.0					
			224.1	727.8	4994.7	10852.8	13566.0
31400	181.0	617.0					
			315.7	1075.0	5310.4	11927.8	14909.8
31450	160.0	544.0					
			293.5	1014.8	5603.9	12942.6	16178.3
31500	157.0	552.0					
			213.0	732.4	5816.9	13675.0	17093.8
31550	73.0	239.0					
			136.1	420.4	5953.0	14095.4	17619.3
31600	74.0	215.0					
			133.3	415.7	6086.3	14511.1	18138.9
31650	70.0	234.0					
			126.9	446.3	6213.2	14957.4	18696.8
31700	67.0	248.0					
			120.4	461.1	6333.6	15418.5	19273.1
31750	63.0	250.0					
			111.1	458.3	6444.7	15876.8	19846.0
31800	57.0	245.0					
			103.7	434.3	6548.4	16311.1	20388.9
31850	55.0	224.0					
			99.1	390.7	6647.5	16701.8	20877.3
31900	52.0	198.0					
			88.0	328.7	6735.5	17030.5	21288.1
31950	43.0	157.0					
			73.1	267.6	6808.6	17298.1	21622.6
32000	36.0	132.0					
			58.3	250.0	6866.9	17548.1	21935.1
32050	27.0	138.0					
			46.3	256.5	6913.2	17804.6	22255.8
32100	23.0	139.0					
			44.4	248.1	6957.6	18052.7	22565.9
32150	25.0	129.0					
			49.1	225.9	7006.7	18278.6	22848.3
32200	28.0	115.0					
			33.3	216.7	7040.0	18495.3	23119.1
32250	8.0	119.0					
			40.7	256.5	7080.7	18751.8	23439.8
32300	36.0	158.0					
			67.6	346.3	7148.3	19098.1	23872.6
32350	37.0	216.0					
			34.3	261.1	7182.6	19359.2	24199.0
32400		66.0					
			13.9	77.8	7196.5	19437.0	24296.3
32450	15.0	18.0					
			35.2	23.1	7231.7	19460.1	24325.1
32500	23.0	7.0					
			44.4	6.5	7276.1	19466.6	24333.3
32550	25.0	0.0					
			47.2	0.0	7323.3	19466.6	24333.3
32600	26.0	0.0					
			50.0	0.0	7373.3	19466.6	24333.3
32650	28.0	0.0					
			50.0	0.0	7423.3	19466.6	24333.3
32700	26.0	0.0					
			46.3	0.0	7469.6	19466.6	24333.3
32750	24.0	0.0					
			0.4	0.0	7470.0	19466.6	24333.3
32751	0.0	0.0					
			0.0	0.0	7470.0	19466.6	24333.3

EARTHWORK - LINE "E"

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	ACCUM. VOLUME CUT (C.Y.)	ACCUM. VOLUME FILL (C.Y.)	ACCUM. VOLUME EXPANDED FILL (C.Y.)
29100	9.0	0.0					
			19.4	3.7	19.4	3.7	4.6
29150	12.0	4.0					
			22.2	9.3	41.6	13.0	16.3
29200	12.0	6.0					
			25.0	13.0	66.6	26.0	32.5
29250	15.0	8.0					
			38.0	13.9	104.6	39.9	49.9
29300	26.0	7.0					
			51.9	19.4	156.5	59.3	74.1
29350	30.0	14.0					
			61.1	38.0	217.6	97.3	121.6
29400	36.0	27.0					
			69.4	52.8	287.0	150.1	187.6
29450	39.0	30.0					
			76.9	67.6	363.9	217.7	272.1
29500	44.0	43.0					
			95.4	141.7	459.3	359.4	449.3
29550	59.0	110.0					
			91.7	248.1	551.0	607.5	759.4
29600	40.0	158.0					
			77.8	271.3	628.8	878.8	1098.5
29650	44.0	135.0					
			75.0	236.1	703.8	1114.9	1393.6
29700	37.0	120.0					
			85.2	216.7	789.0	1331.6	1664.5
29750	55.0	114.0					
			113.9	213.9	902.9	1545.5	1931.9
29800	68.0	117.0					
			118.5	200.9	1021.4	1746.4	2183.0
29850	60.0	100.0					
			113.9	166.7	1135.3	1913.1	2391.4
29900	63.0	80.0					
			122.2	154.6	1257.5	2067.7	2584.6
29950	69.0	87.0					
			130.6	173.1	1388.1	2240.8	2801.0
30000	72.0	100.0					
			142.6	199.1	1530.7	2439.9	3049.9
30050	82.0	115.0					
			148.1	233.3	1678.8	2673.2	3341.5
30100	78.0	137.0					
			151.9	257.4	1830.7	2930.6	3663.3
30150	86.0	141.0					
			161.1	258.3	1991.8	3188.9	3986.1
30200	88.0	138.0					
			165.7	257.4	2157.5	3446.3	4307.9
30250	91.0	140.0					
			167.6	300.0	2325.1	3746.3	4682.9
30300	90.0	184.0					
			164.8	344.4	2489.9	4090.7	5113.4
30350	88.0	188.0					
			141.7	303.7	2631.6	4394.4	5493.0
30400	65.0	140.0					
			120.4	235.2	2752.0	4629.6	5787.0
30450	65.0	114.0					
			115.7	198.1	2867.7	4827.7	6034.6
30500	60.0	100.0					
			117.6	207.4	2985.3	5035.1	6293.9
30550	67.0	124.0					
			125.0	247.2	3110.3	5282.3	6602.9
30600	68.0	143.0					
			152.8	294.4	3263.1	5576.7	6970.9
30650	97.0	175.0					
			175.0	269.4	3438.1	5846.1	7307.6
30700	92.0	116.0					
			172.2	205.6	3610.3	6051.7	7564.6
30750	94.0	106.0					
			173.1	200.9	3783.4	6252.6	7815.8
30800	93.0	111.0					
			168.5	222.2	3951.9	6474.8	8093.5
30850	89.0	129.0					
			161.1	238.9	4113.0	6713.7	8392.1
30900	85.0	129.0					
			157.4	221.3	4270.4	6935.0	8668.8
30950	85.0	110.0					
			144.4	167.6	4414.8	7102.6	8878.3
31000	71.0	71.0					
			137.0	163.9	4551.8	7266.5	9083.1
31050	77.0	106.0					
			157.4	261.1	4709.2	7527.6	9409.5
31100	93.0	176.0					
			213.9	392.6	4923.1	7920.2	9900.3
31150	138.0	248.0					
			262.0	491.7	5185.1	8411.9	10514.9
31200	145.0	283.0					
			265.7	527.8	5450.8	8939.7	11174.6
31250	142.0	287.0					
			220.4	409.3	5671.2	9349.0	11686.3
31300	96.0	155.0					
			182.4	300.0	5853.6	9649.0	12061.3
31350	101.0	169.0					
			175.0	347.2	6028.6	9996.2	12495.3
31400	88.0	206.0					
			165.7	331.5	6194.3	10327.7	12909.6
31450	91.0	152.0					
			170.4	257.4	6364.7	10585.1	13231.4
31500	93.0	126.0					
			150.0	181.5	6514.7	10766.6	13458.3
31550	69.0	70.0					
			124.1	164.8	6638.8	10931.4	13664.3
31600	65.0	108.0					
			150.0	287.0	6788.8	11218.4	14023.0
31650	97.0	202.0					
			173.1	377.8	6961.9	11596.2	14495.3
31700	90.0	206.0					
			173.1	384.3	7135.0	11980.5	14975.6
31750	97.0	209.0					
			175.9	389.8	7310.9	12370.3	15462.9
31800	93.0	212.0					
			174.1	390.7	7485.0	12761.0	15951.3
31850	95.0	210.0					
			177.8	379.6	7662.8	13140.6	16425.8
31900	97.0	200.0					
			177.8	329.6	7840.6	13470.2	16837.8
31950	95.0	156.0					
			169.4	283.3	8010.0	13753.5	17191.9
32000	88.0	150.0					
			156.5	317.6	8166.5	14071.1	17588.9
32050	81.0	193.0					
			147.2	408.3	8313.7	14479.4	18099.3
32100	78.0	248.0					
			132.4	478.7	8446.1	14958.1	18697.6
32150	65.0	269.0					
			106.5	491.7	8552.6	15449.8	19312.3
32200	50.0	262.0					
			86.1	479.6	8638.7	15929.4	19911.8
32250	43.0	256.0					
			73.1	447.2	8711.8	16376.6	20470.8
32300	36.0	227.0					
			56.5	365.7	8768.3	16742.3	20927.9
32350	25.0	168.0					
			30.6	252.8	8798.9	16995.1	21243.9
32400	8.0	105.0					
			21.3	154.6	8820.2	17149.7	21437.1
32450	15.0	62.0					
			35.2	88.0	8855.4	17237.7	21547.1
32500	23.0	33.0					
			44.4	69.4	8899.8	17307.1	21633.9
32550	25.0	42.0					
			47.2	58.3	8947.0	17365.4	21706.8
32600	26.0	21.0					
			50.0	22.2	8997.0	17387.6	21734.5
32650	28.0	3.0					
			50.0	3.7	9047.0	17391.3	21739.1
32700	26.0	1.0					
			46.3	1.9	9093.3	17393.2	21741.5
32750	24.0	1.0					
			44.4	0.9	9137.7	17394.1	21742.6
32800	24.0	0.0					
			43.5	0.0	9181.2	17394.1	21742.6
32850	23.0	0.0					
			41.7	0.0	9222.9	17394.1	21742.6
32900	22.0	0.0					
			39.8	0.0	9262.7	17394.1	21742.6
32950	21.0	0.0					
			38.0	0.0	9300.7	17394.1	21742.6
33000	20.0	0.0					
			32.4	1.9	9333.1	17396.0	21745.0
33050	15.0	2.0					
			27.8	1.9	9360.9	17397.9	21747.4
33100	15.0	0.0					
			25.9	1.9	9386.8	17399.8	21749.8
33150	13.0	2.0					
			24.1	4.6	9410.9	17404.4	21755.5
33200	13.0	3.0					
			25.9	4.6	9436.8	17409.0	21761.3
33250	15.0	2.0					
			25.0	2.8	9461.8	17411.8	21764.8
33300	12.0	1.0					
			22.2	6.5	9484.0	17418.3	21772.9
33350	12.0	6.0					
			23.1	6.5	9507.1	17424.8	21781.0
33400	13.0	1.0					
			22.2	0.9	9529.3	17425.7	21782.1
33450	11.0	0.0					
			18.5	0.0	9547.8	17425.7	21782.1
33500	9.0	0.0					
			0.2	0.0	9548.0	17425.7	21782.1
33501	0.0	0.0					
			0.0	0.0	9548.0	17425.7	21782.1

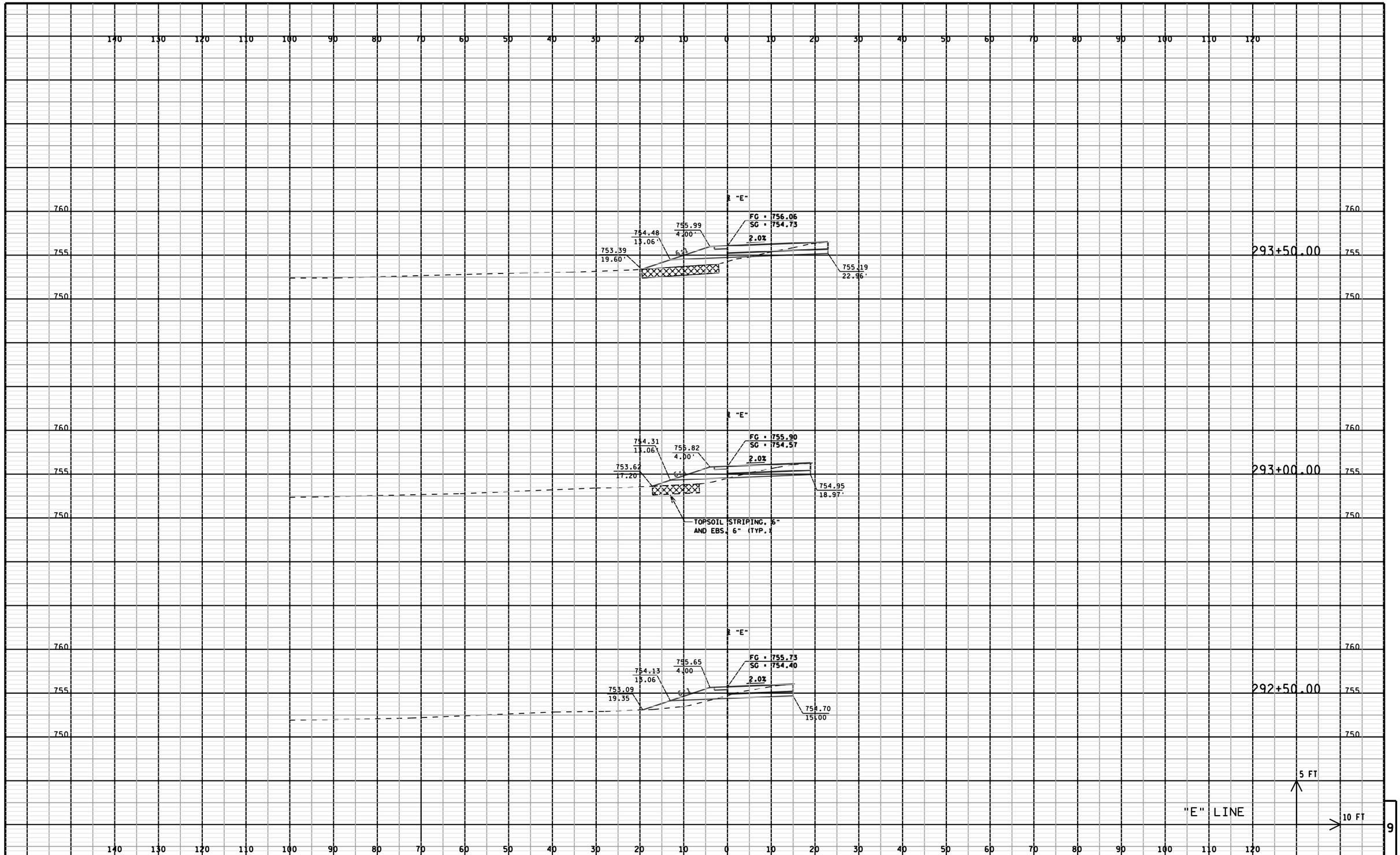
LEVELS ON - 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: EASTBOUND RAMP STA. 291+00.00 TO 292+00.00	SHEET NO: 351	E

FILE NAME : p:/trans/

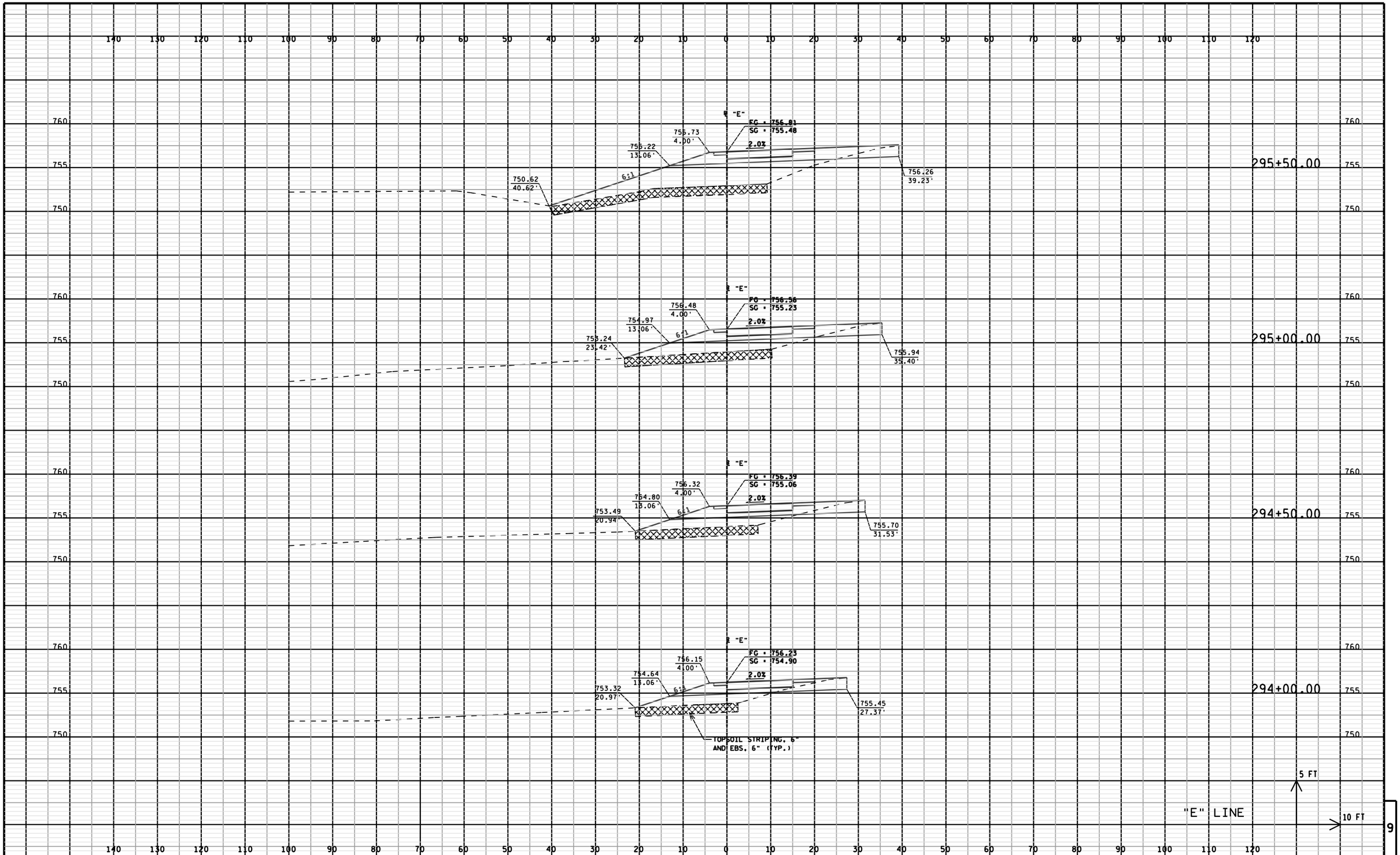
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 292+50.00 TO 293+50.00	SHEET NO: 352	E

FILE NAME : p:/trans/

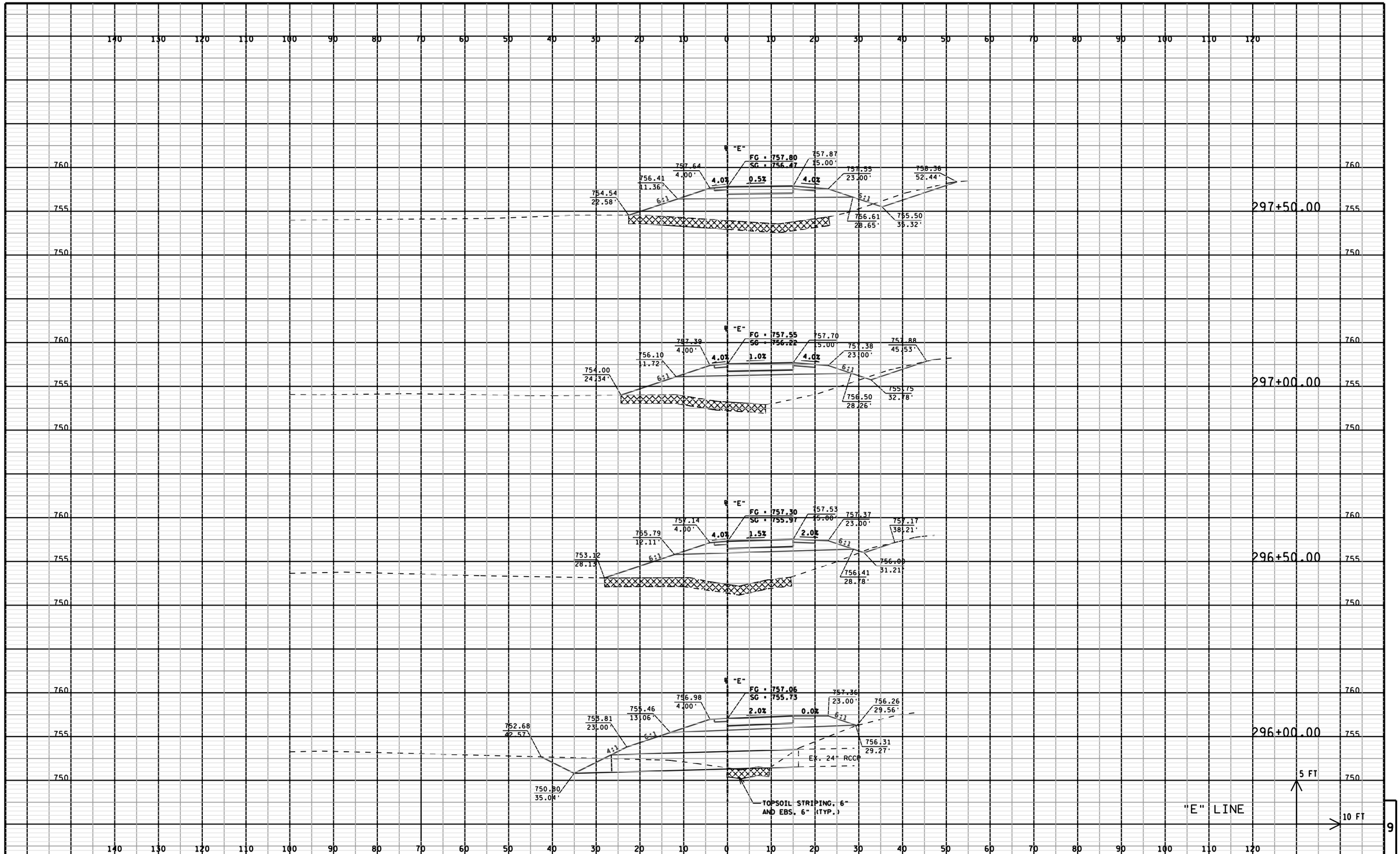
PLOT DATE:



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: EASTBOUND RAMP STA. 294+00.00 TO 295+50.00	SHEET NO: 353	E

FILE NAME : p:/trans/

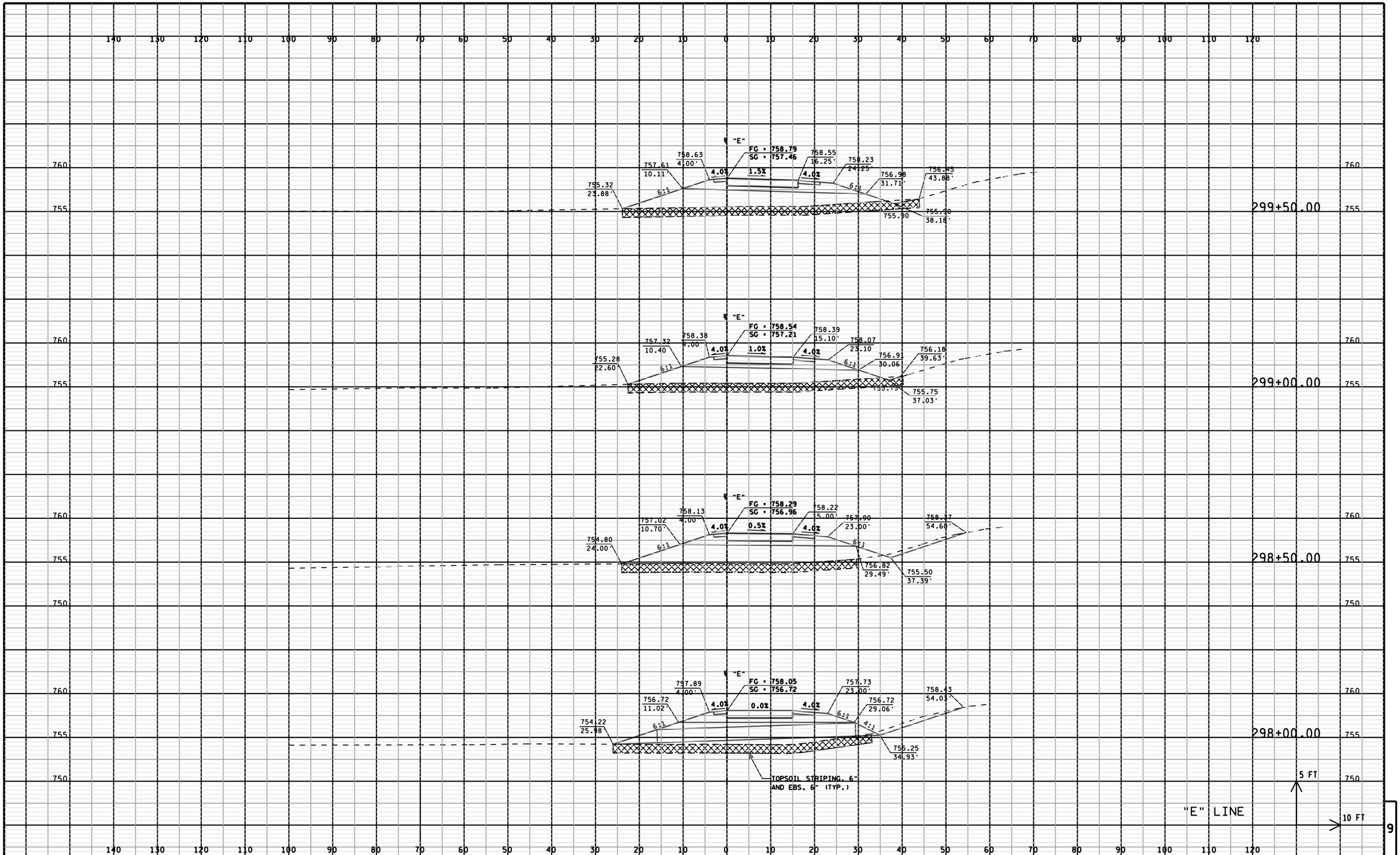
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 296+00.00 TO 297+50.00	SHEET NO: 354	E

FILE NAME : p:/trans/

PLOT DATE:

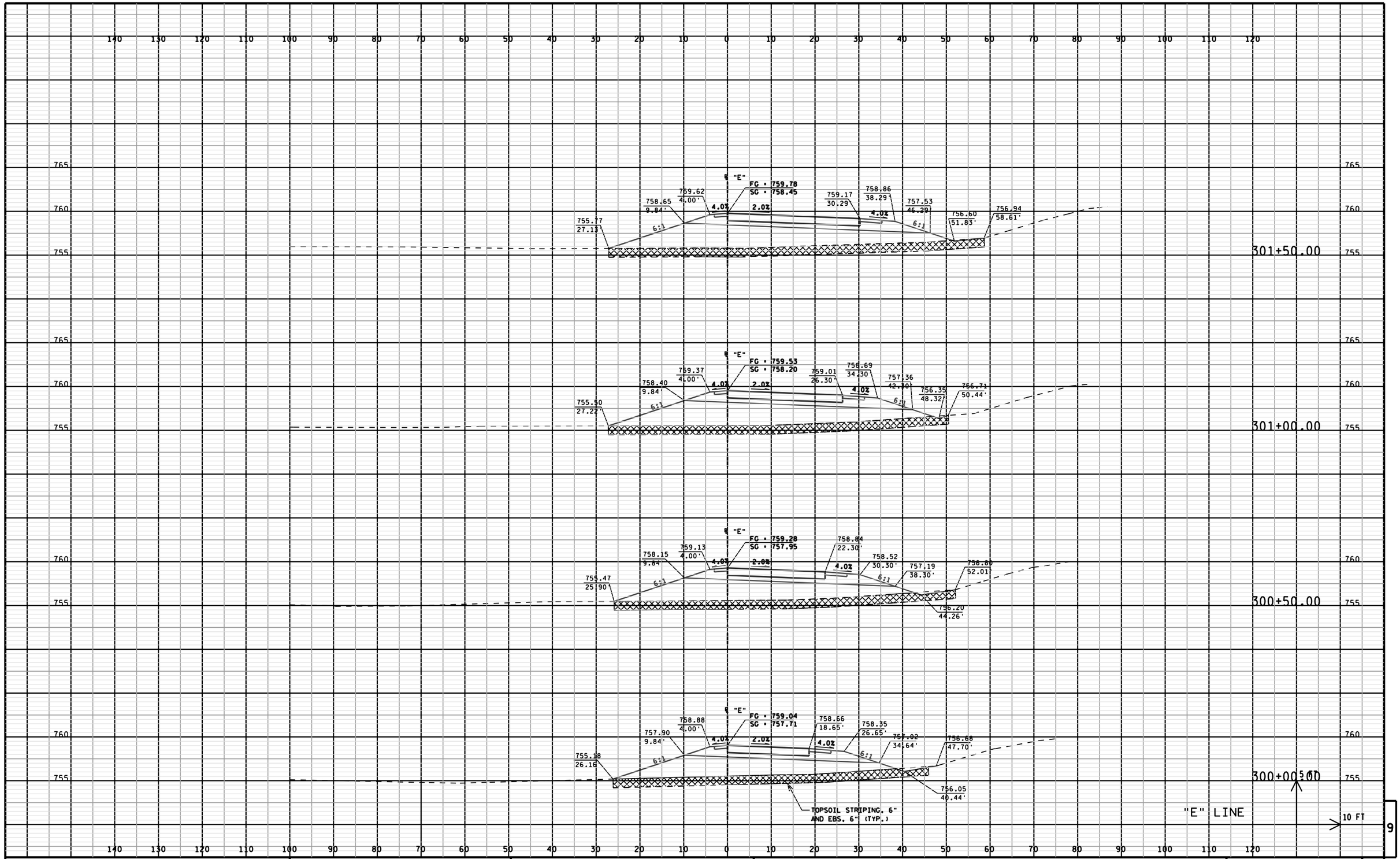


STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 298+00.00 TO 299+50.00	SHEET NO: 355	E

FILE NAME : p:/trans/

PLOT DATE:

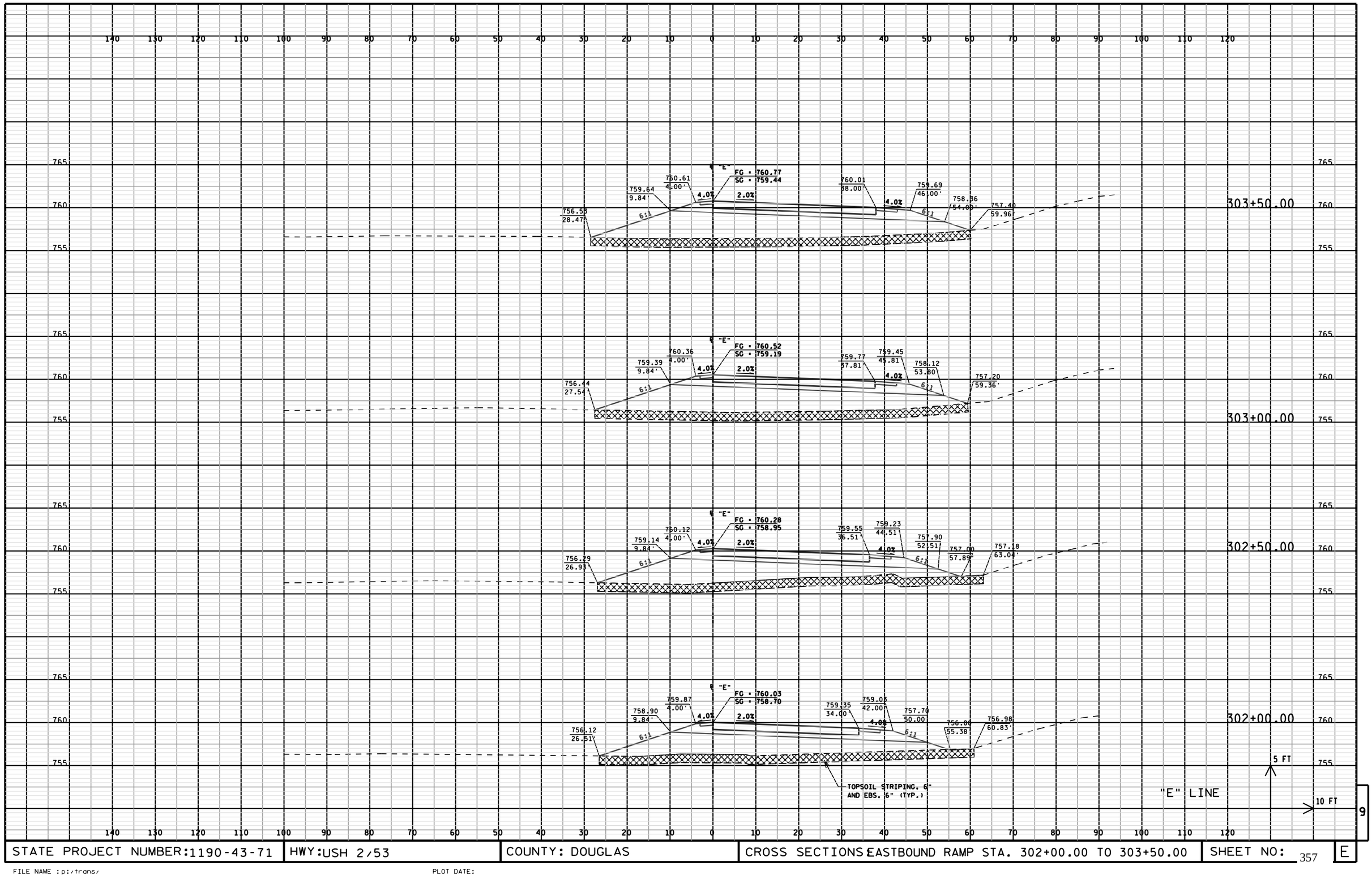
9



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:EASTBOUND RAMP STA. 300+00.00 TO 301+50.00	SHEET NO: 9

FILE NAME : p:/trans/

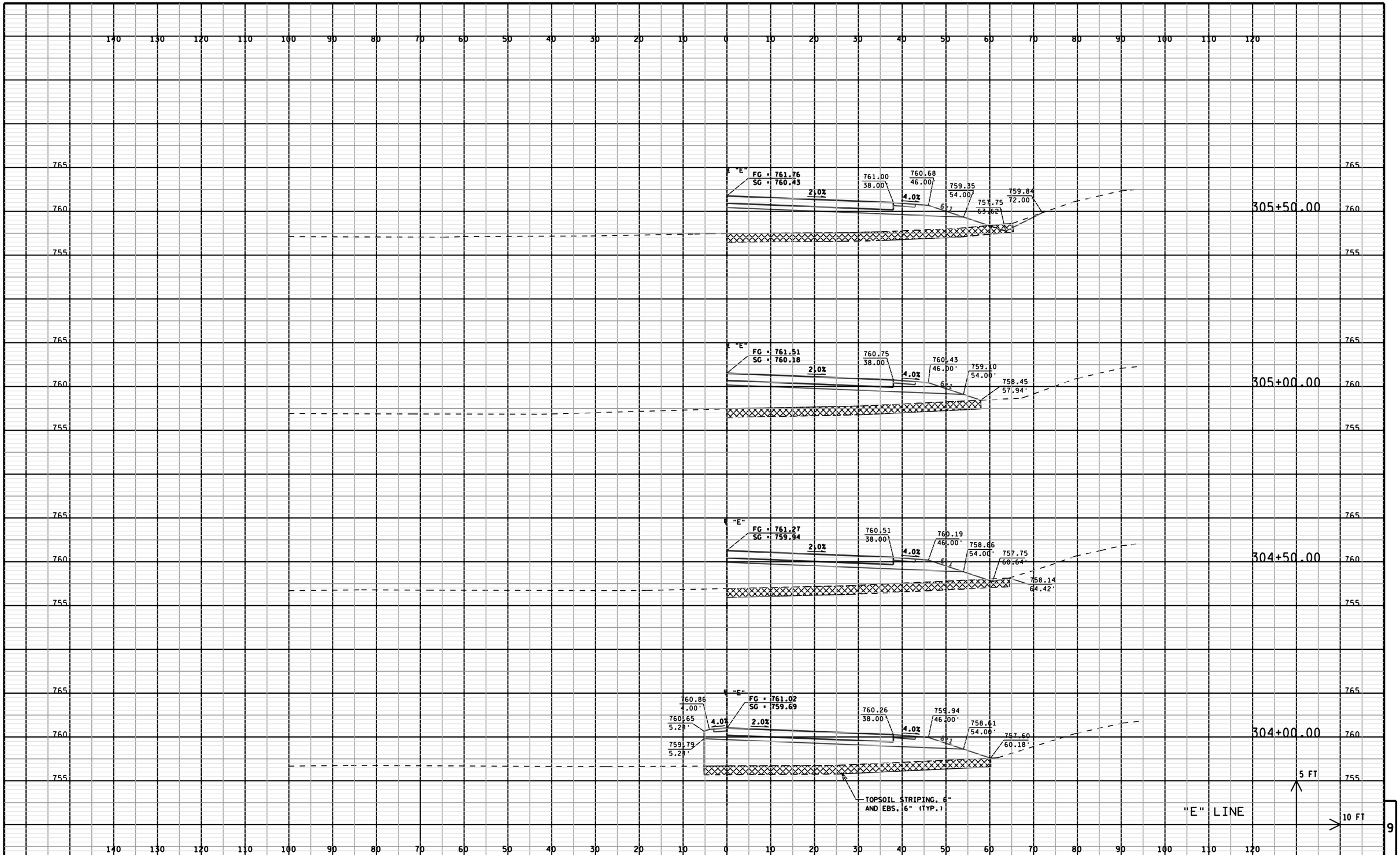
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 302+00.00 TO 303+50.00	SHEET NO: 357 E

FILE NAME : p:/trans/

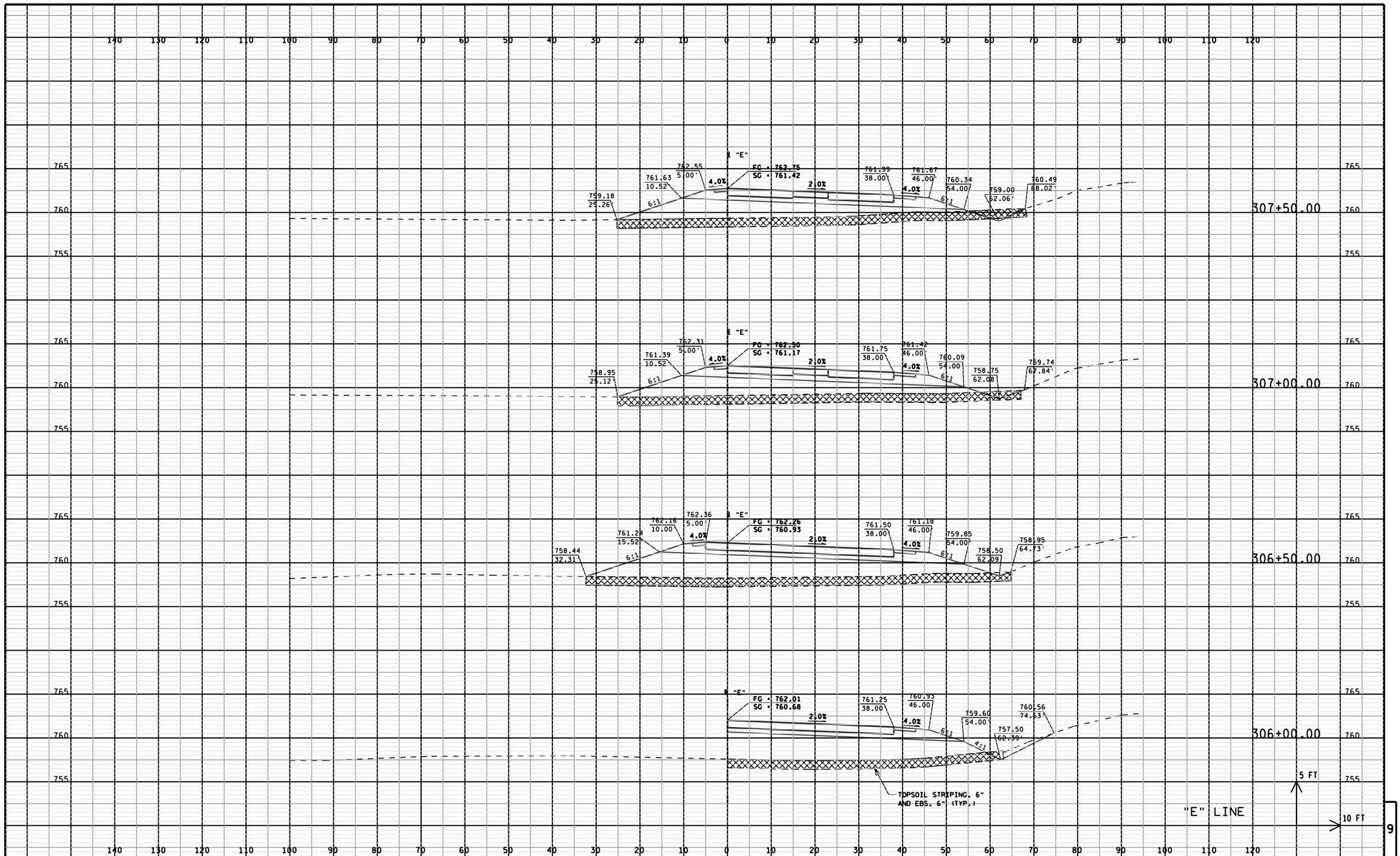
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 304+00.00 TO 305+50.00	SHEET NO: 358	E

FILE NAME : p:/trans/

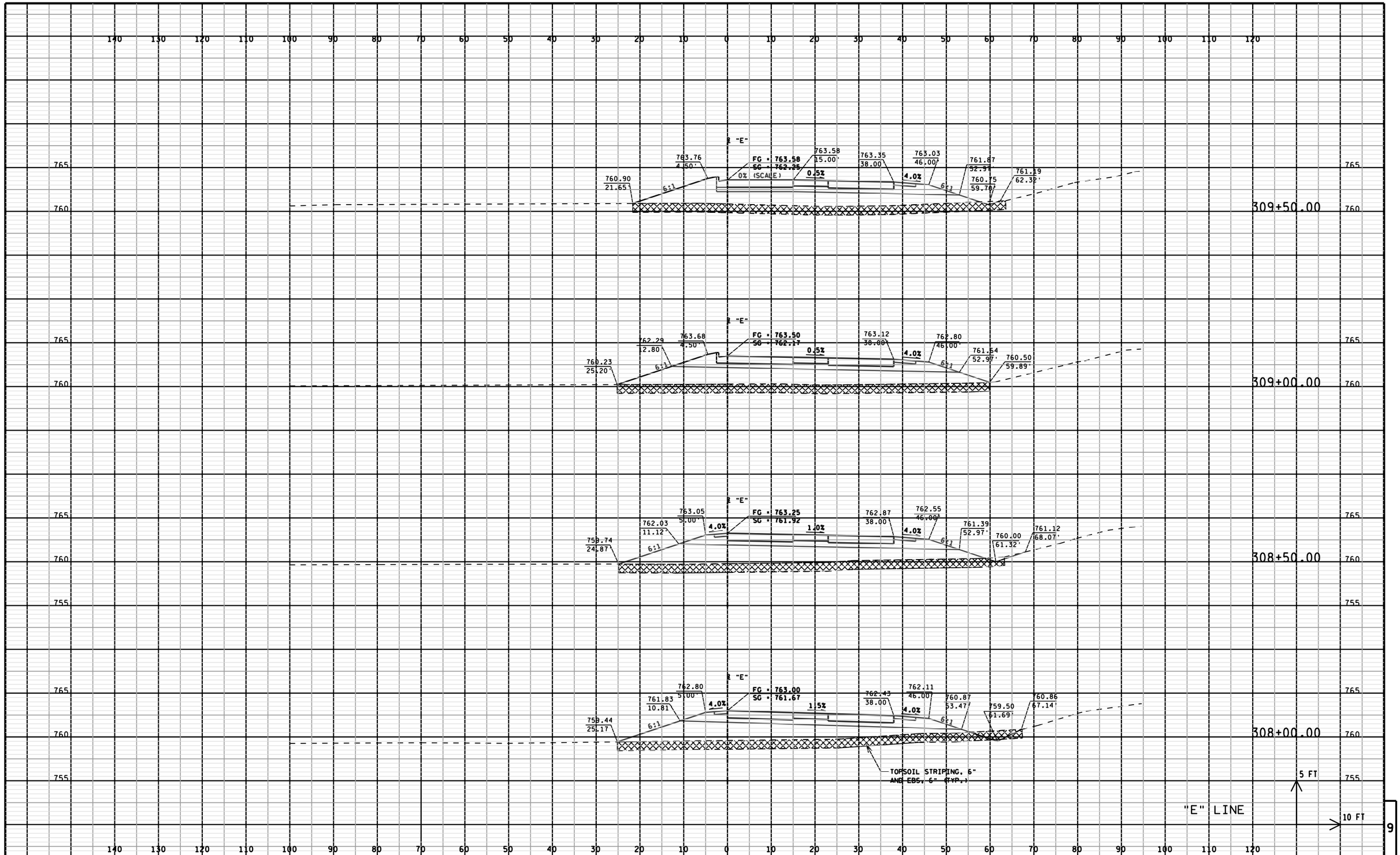
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 306+00.00 TO 307+50.00	SHEET NO: 359	E

FILE NAME : p:/trans/

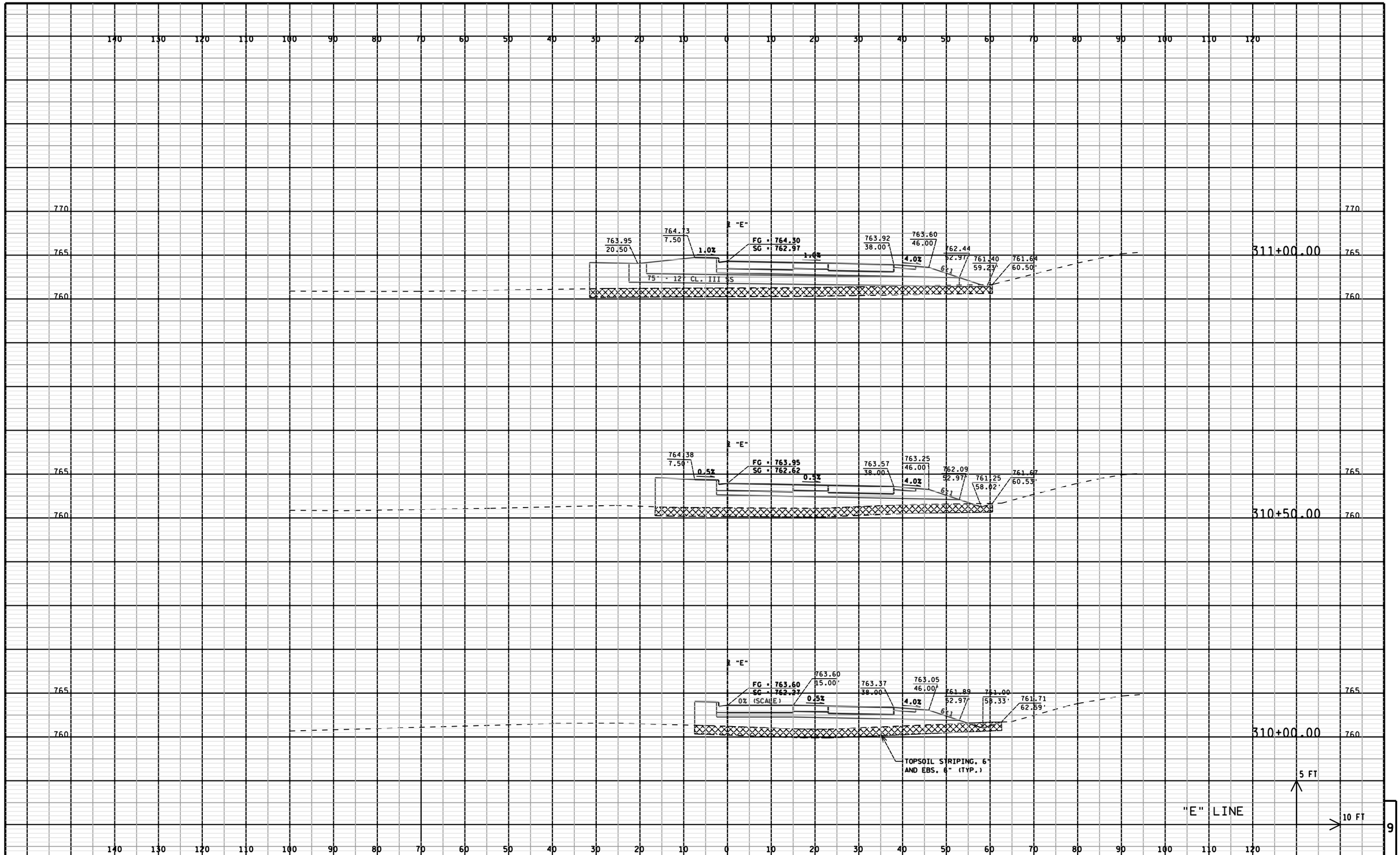
PLOT DATE:



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: EASTBOUND RAMP STA. 308+00.00 TO 309+50.00	SHEET NO: 9

FILE NAME : p:/trans/

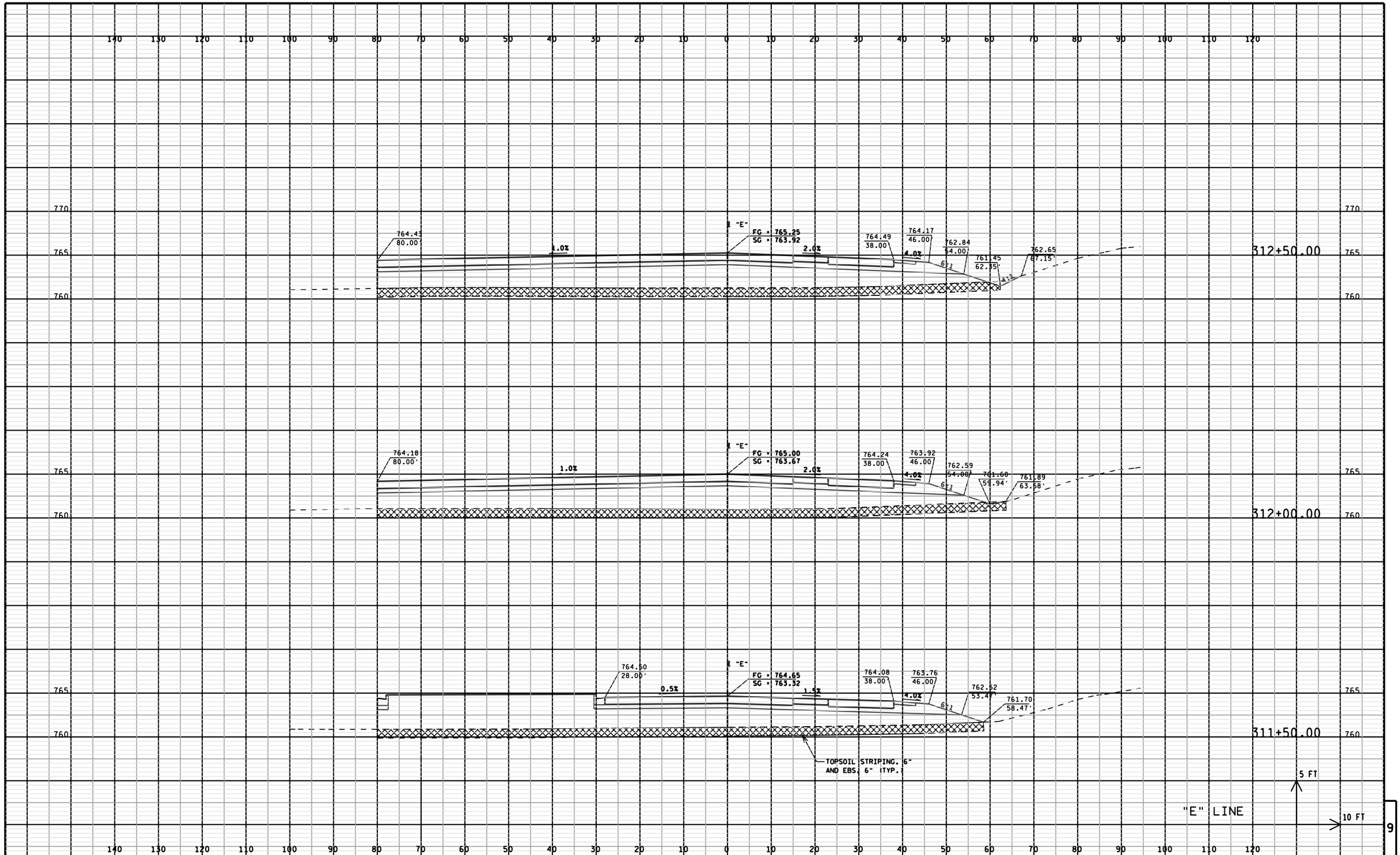
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 310+00.00 TO 311+00.00	SHEET NO: 361 E

FILE NAME : p:/trans/

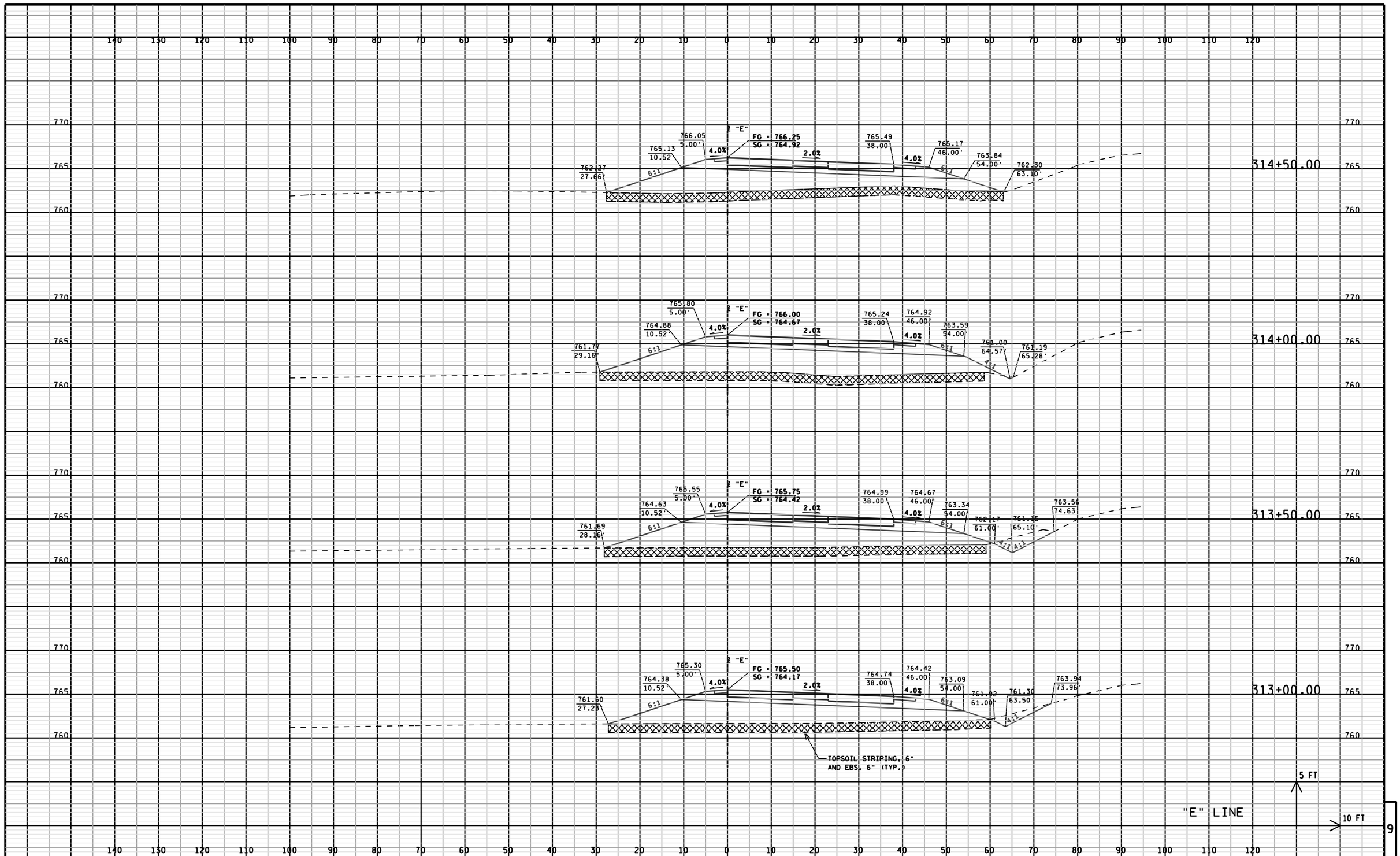
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 311+50.00 TO 312+50.00	SHEET NO: 362	E

FILE NAME : p:/trans/

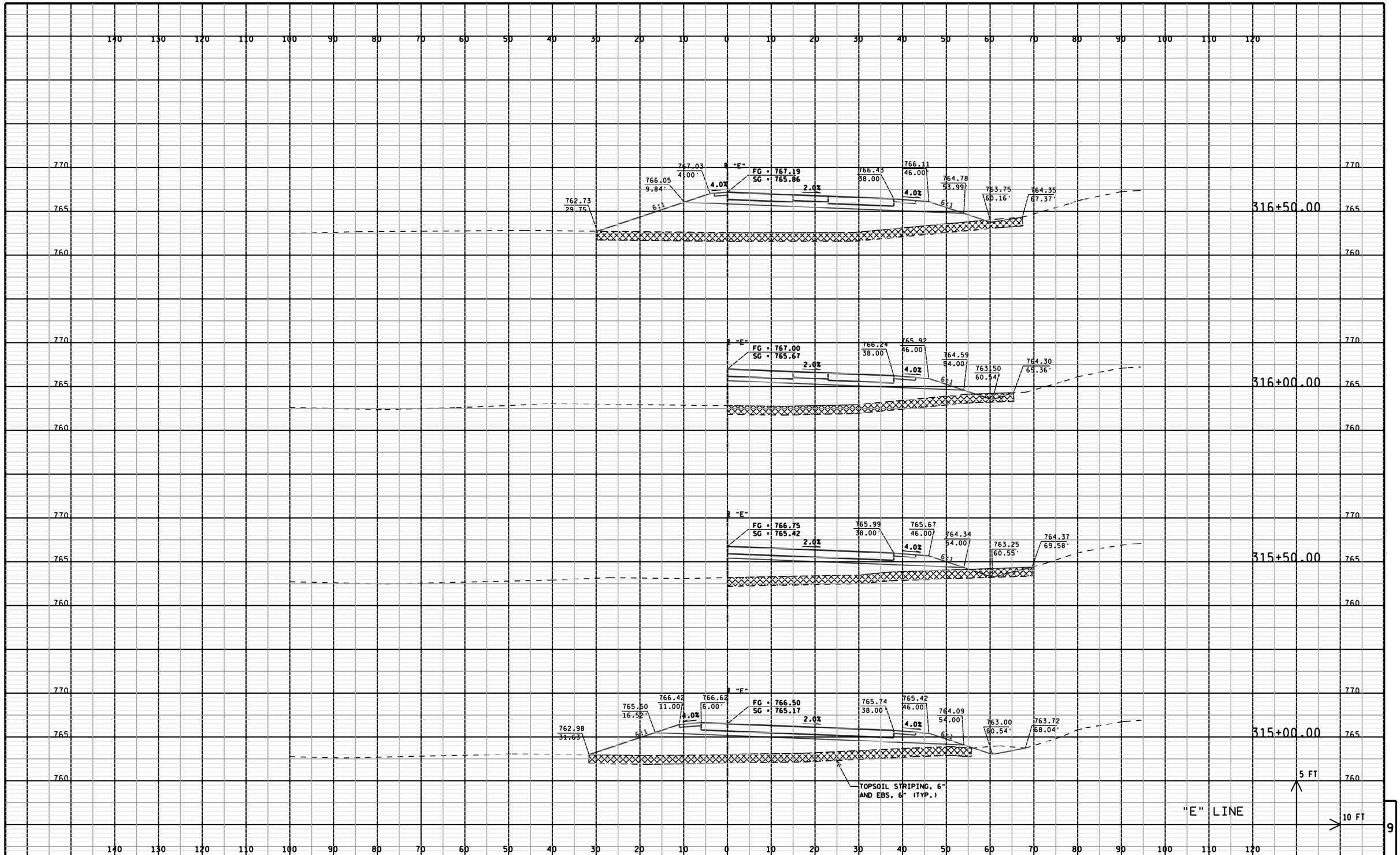
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 313+00.00 TO 314+50.00	SHEET NO: 9 363	E

FILE NAME : p:/trans/

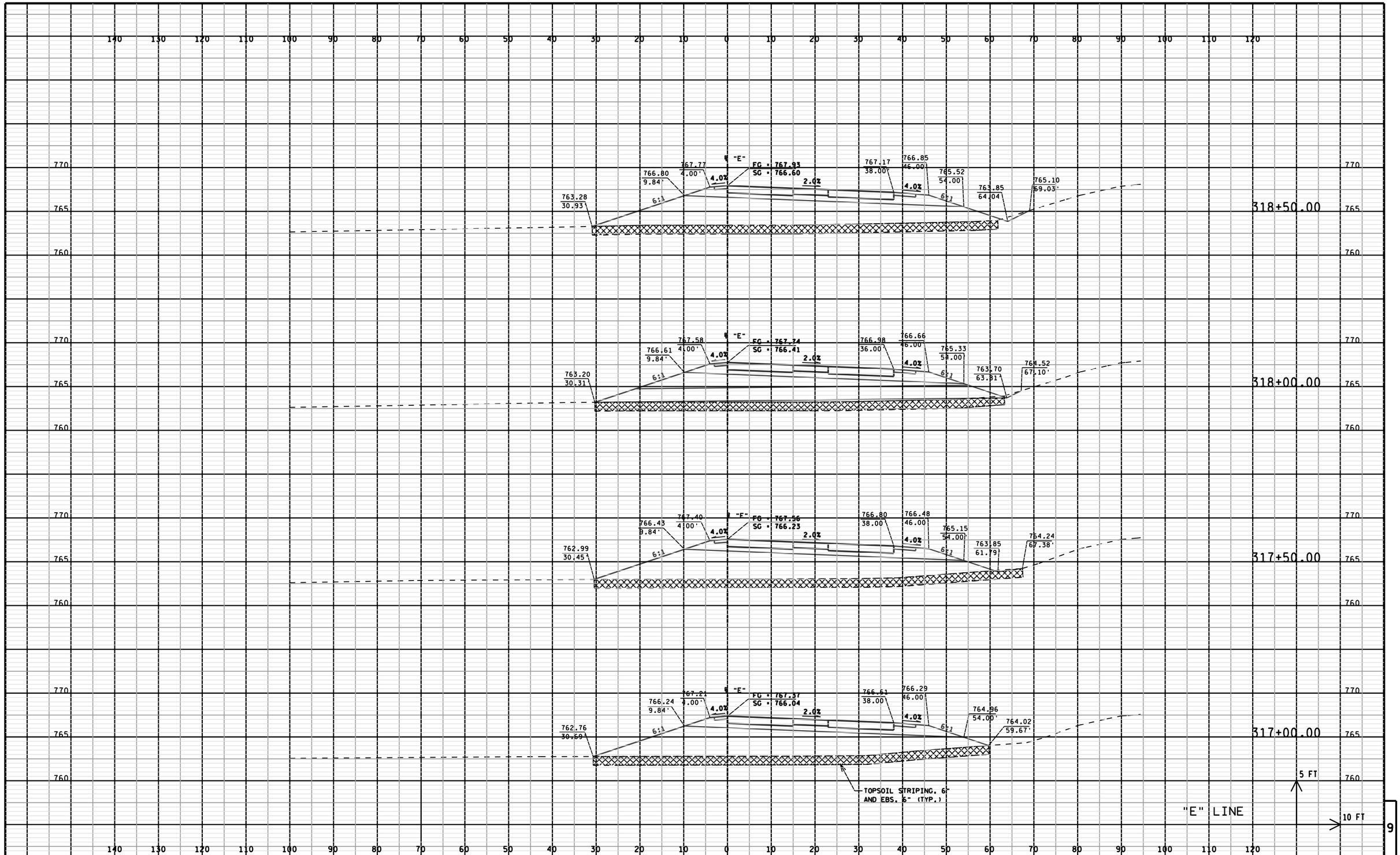
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 315+00.00 TO 316+50.00	SHEET NO: 364	E

FILE NAME : p:/trans/

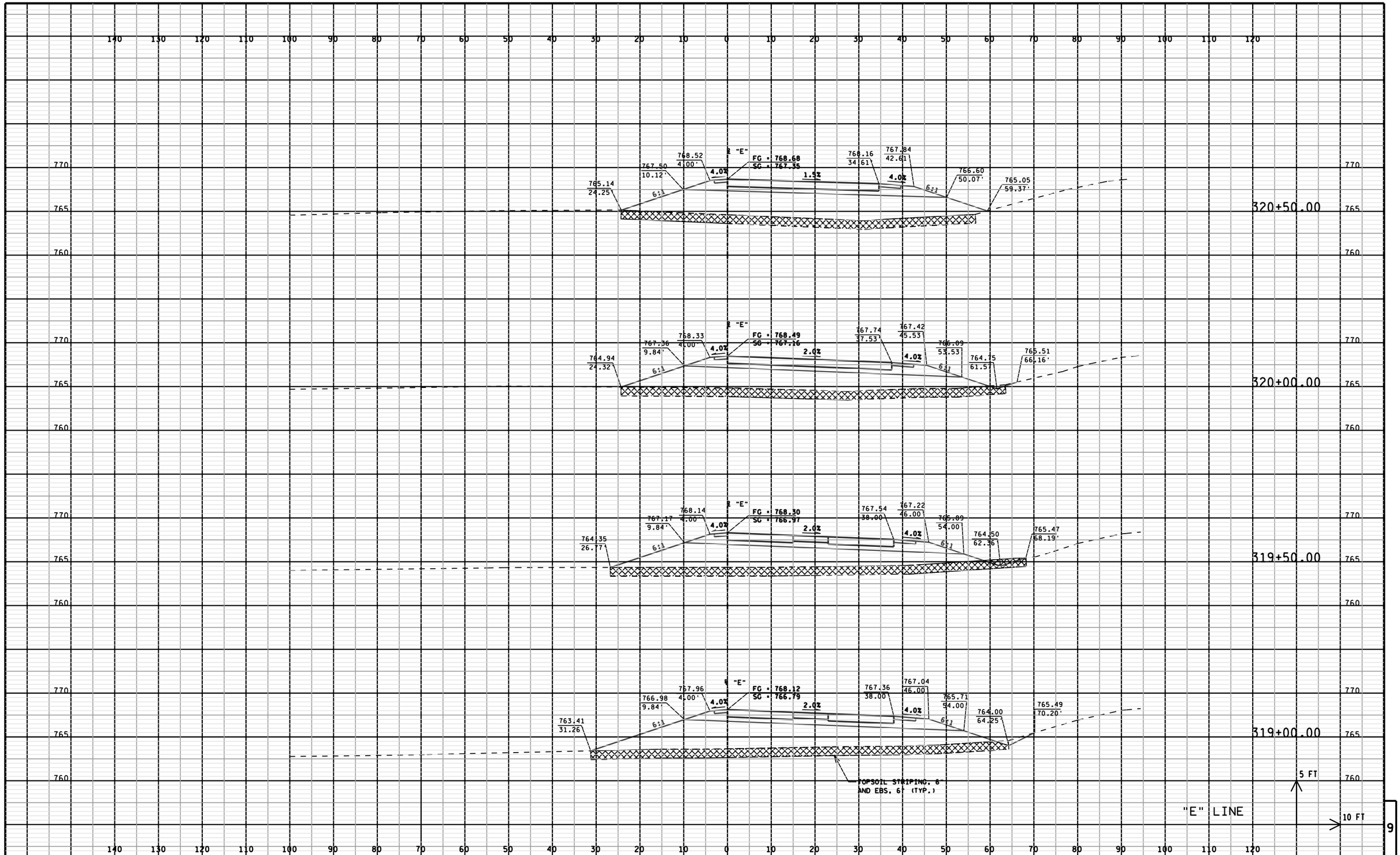
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 317+00.00 TO 318+50.00	SHEET NO: 365	E

FILE NAME : p:/trans/

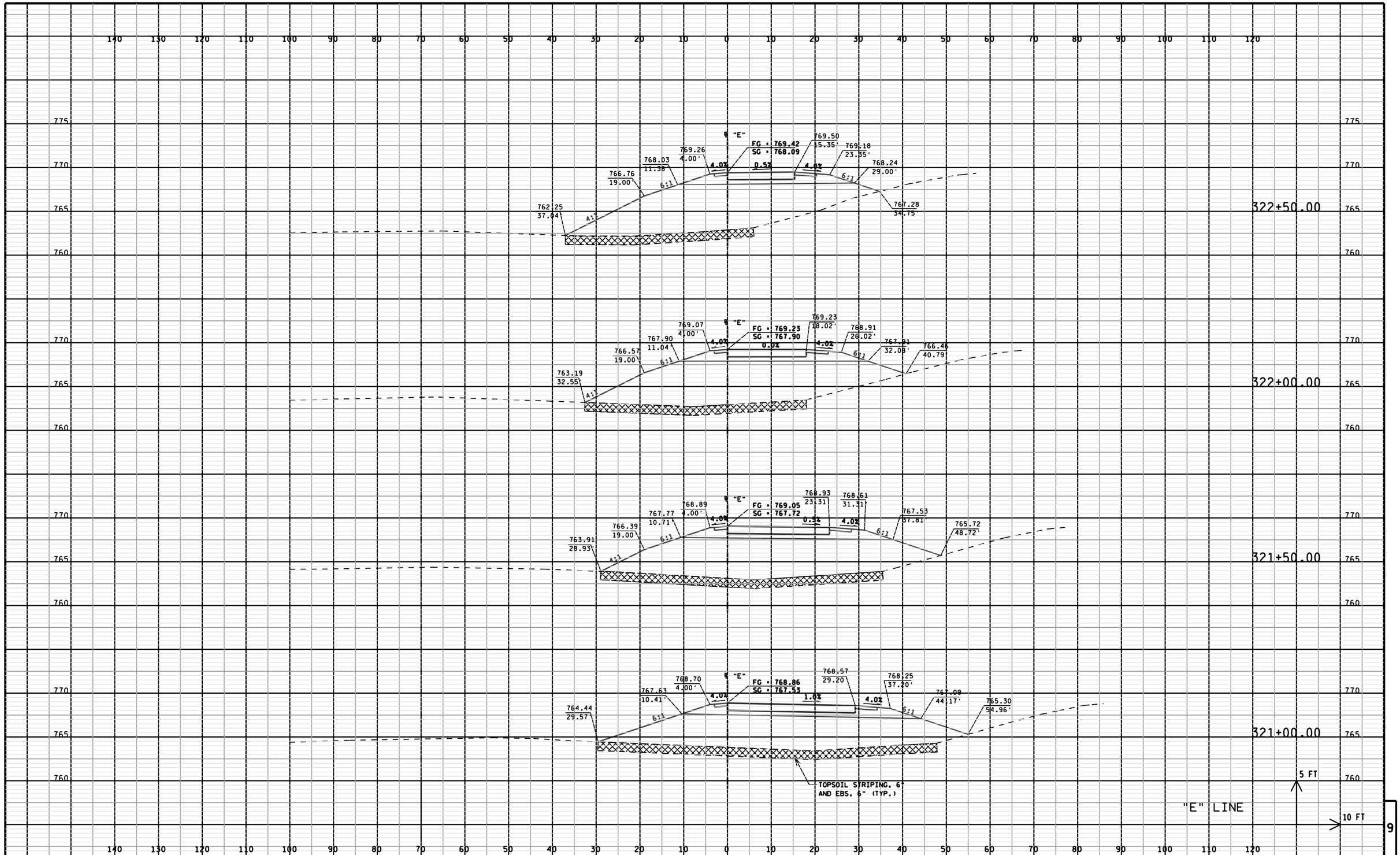
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 319+00.00 TO 320+50.00	SHEET NO: 366	E

FILE NAME : p:/trans/

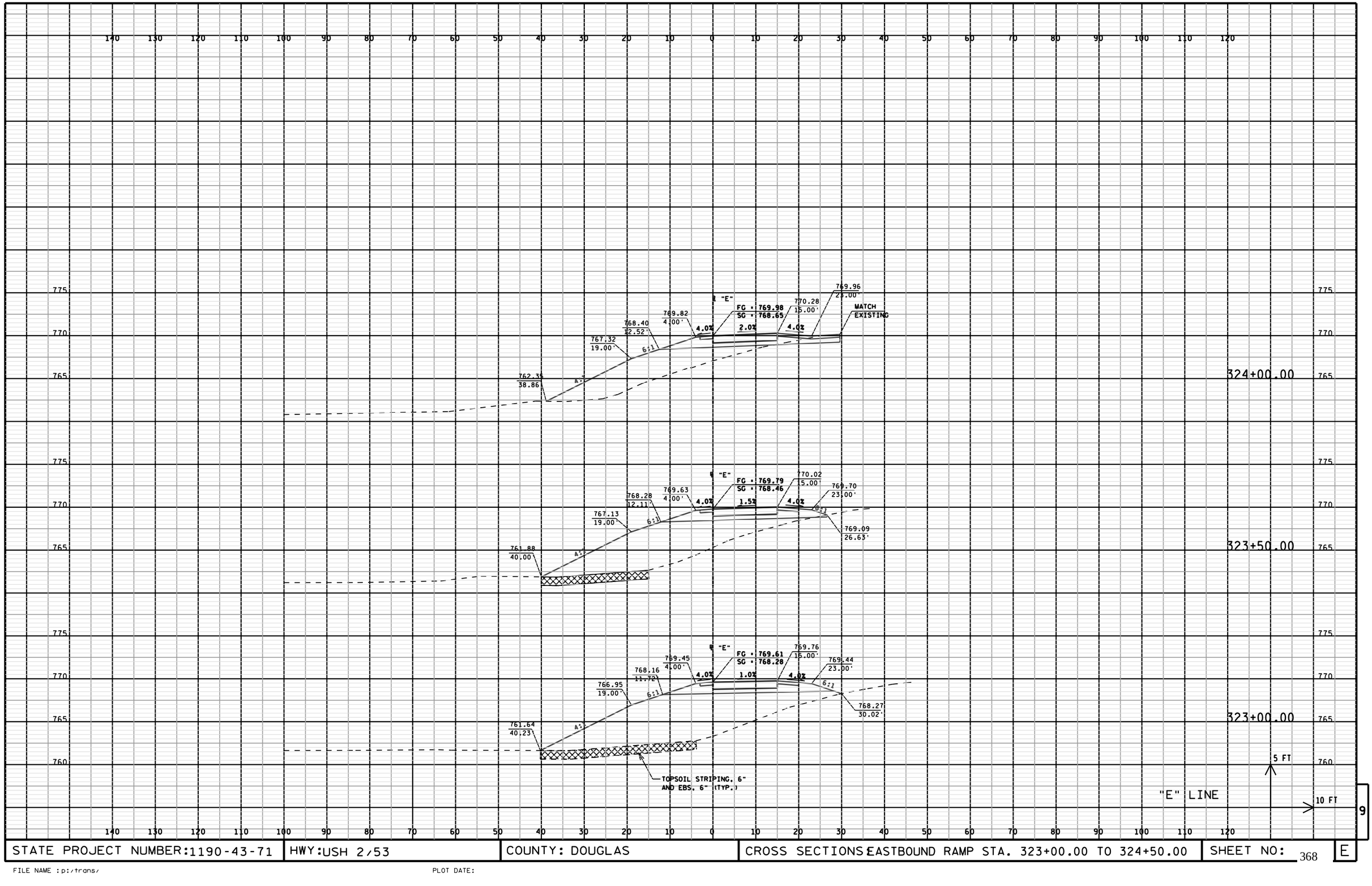
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 321+00.00 TO 322+50.00	SHEET NO: 367 E

FILE NAME : p:/trans/

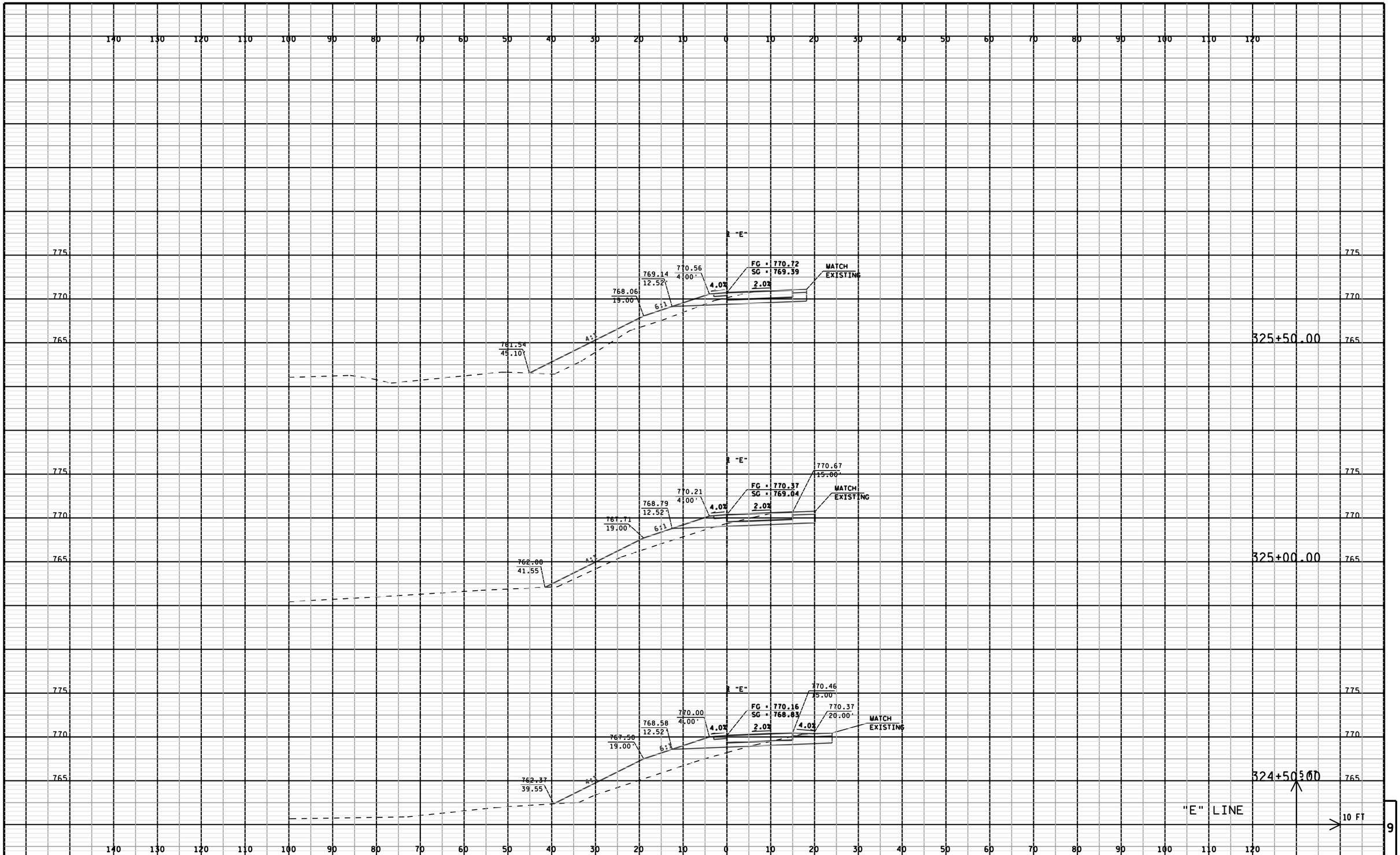
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 323+00.00 TO 324+50.00	SHEET NO: 368	E 9

FILE NAME : p:/trans/

PLOT DATE:

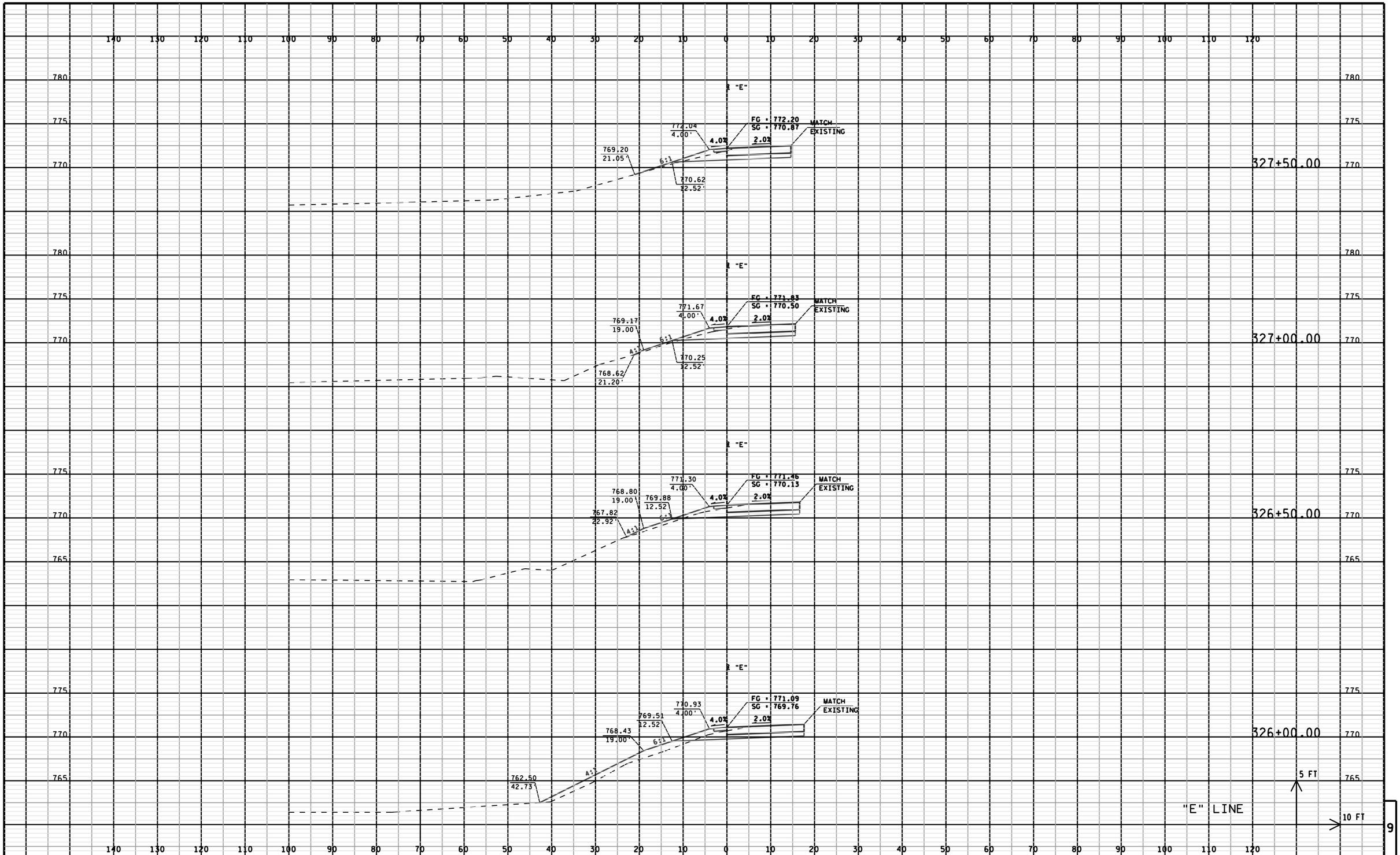


STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 325+00.00 TO 326+00.00	SHEET NO: 369	E

FILE NAME : p:/trans/

PLOT DATE:

9

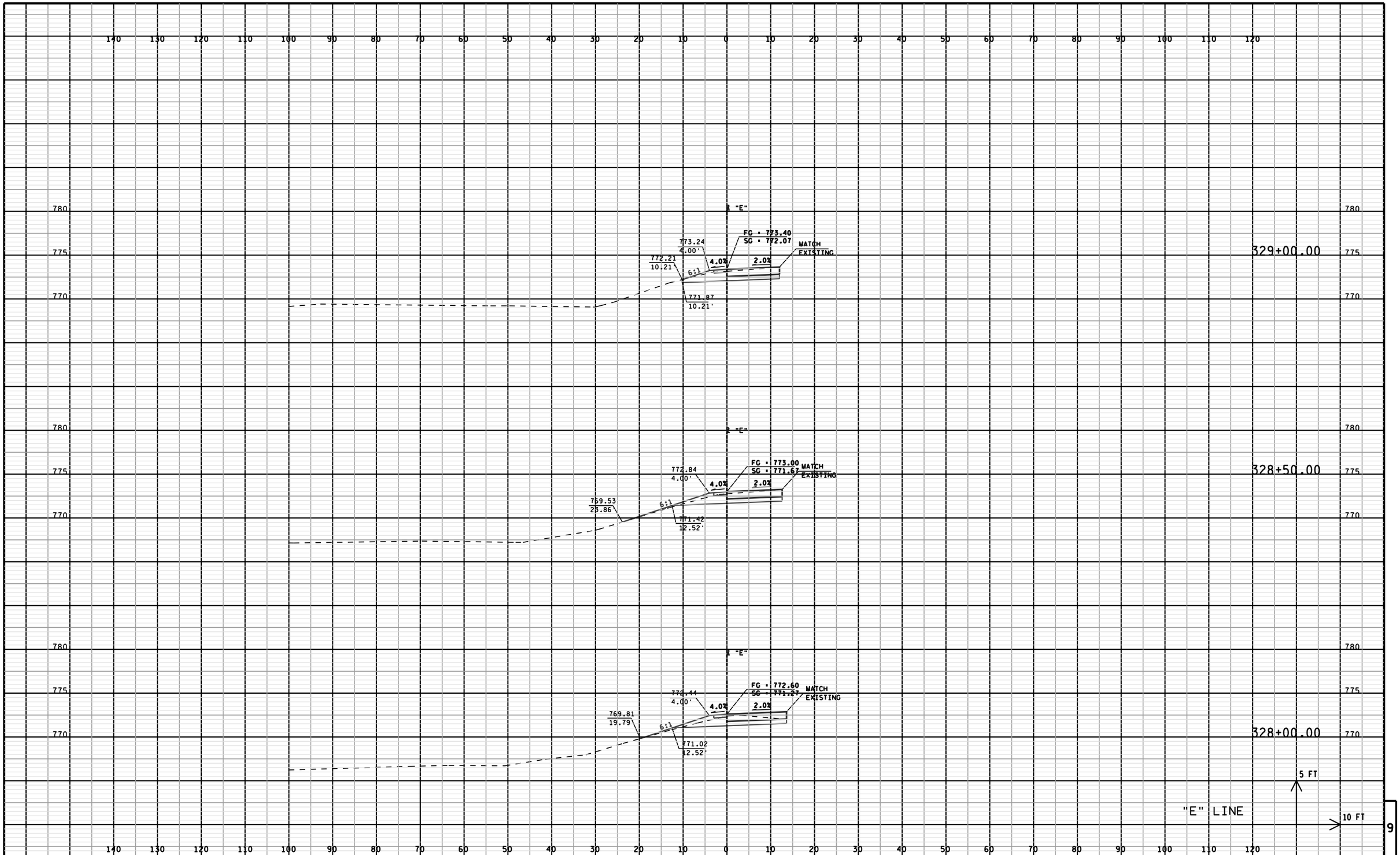


STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 326+50.00 TO 328+00.00	SHEET NO: 370 E

FILE NAME : p:/trans/

PLOT DATE:

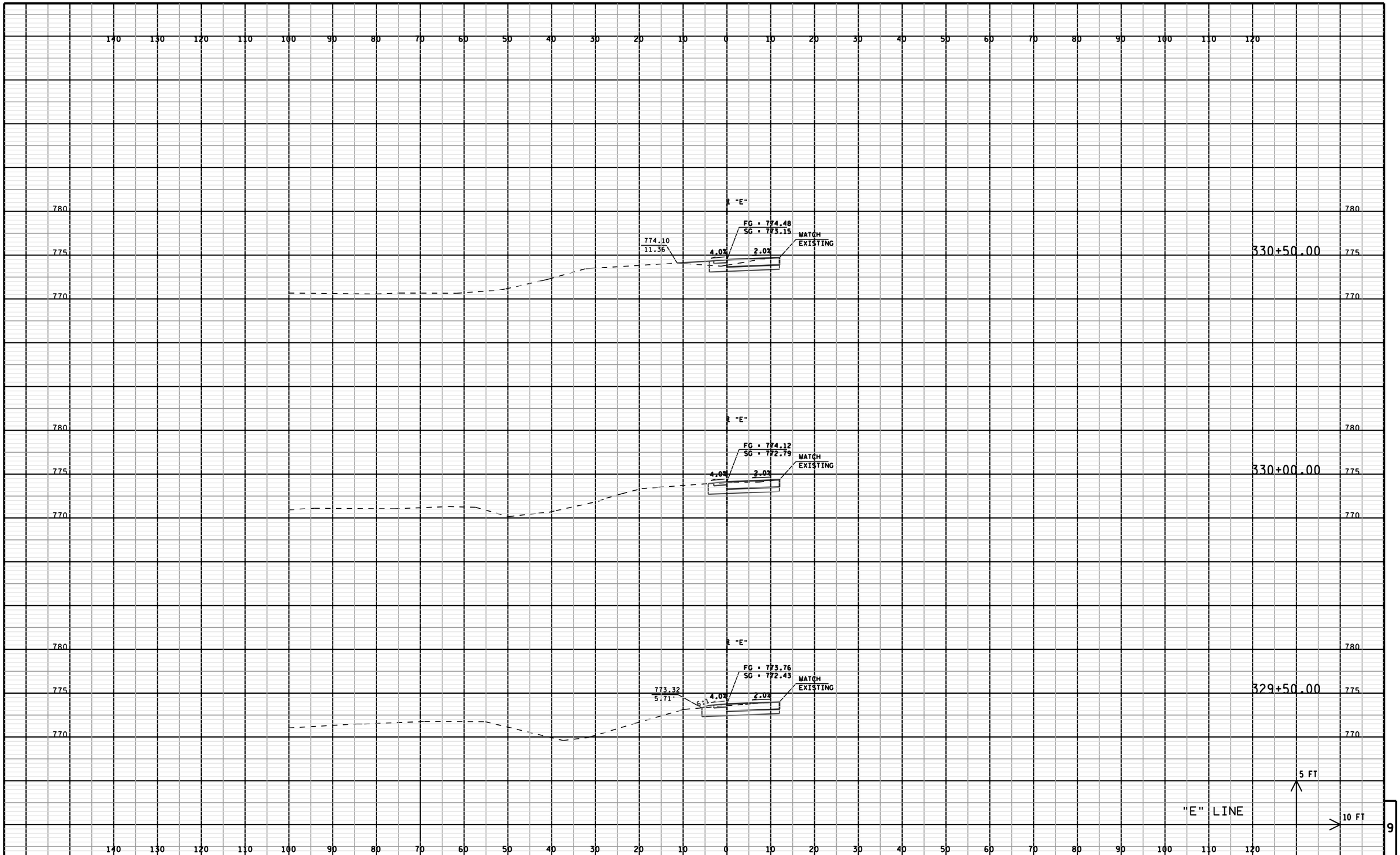
9



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 328+50.00 TO 329+50.00	SHEET NO: 371	E

FILE NAME : p:/trans/

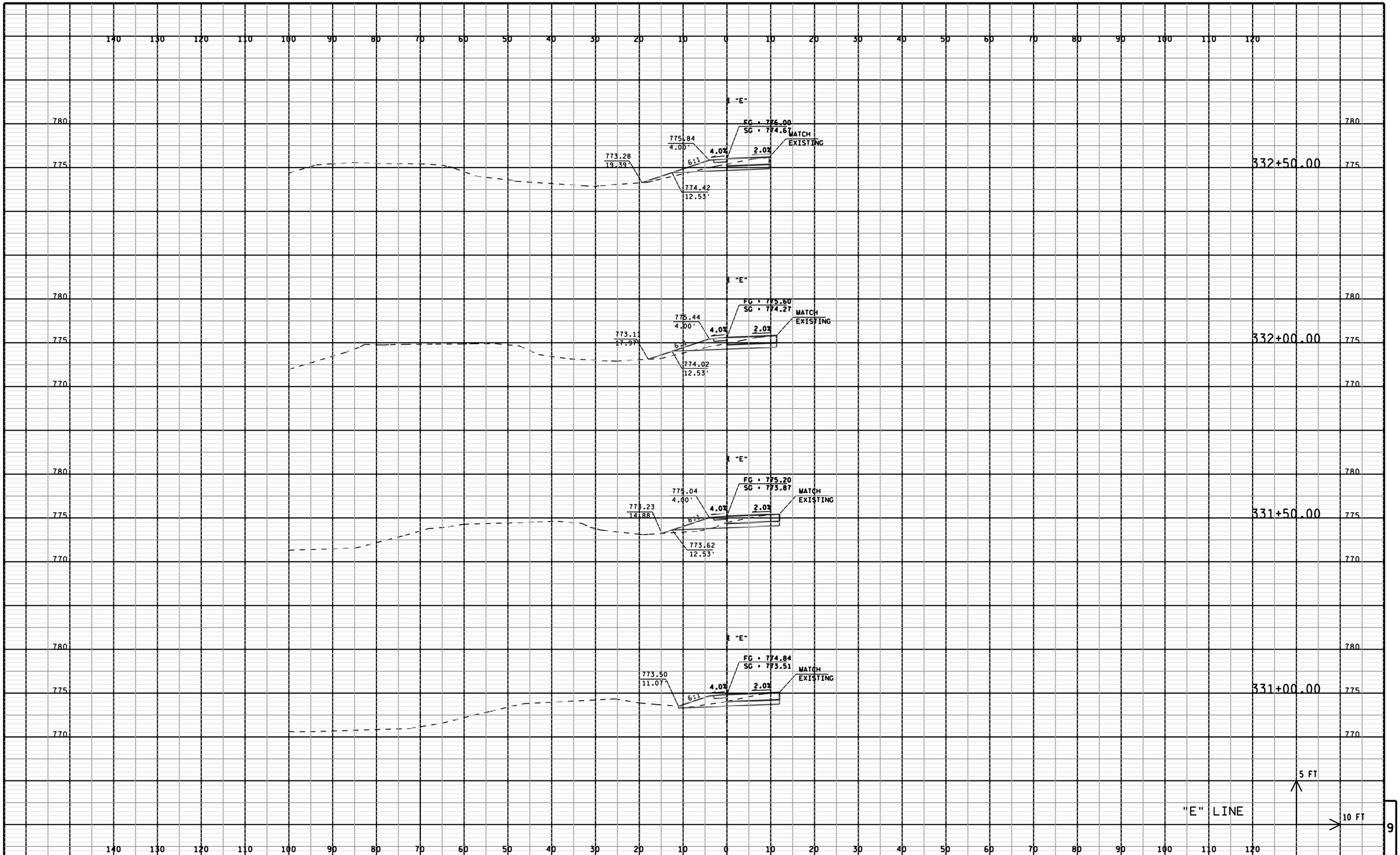
PLOT DATE:



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: EASTBOUND RAMP STA. 330+00.00 TO 331+00.00	SHEET NO: 372	E

FILE NAME : p:/trans/

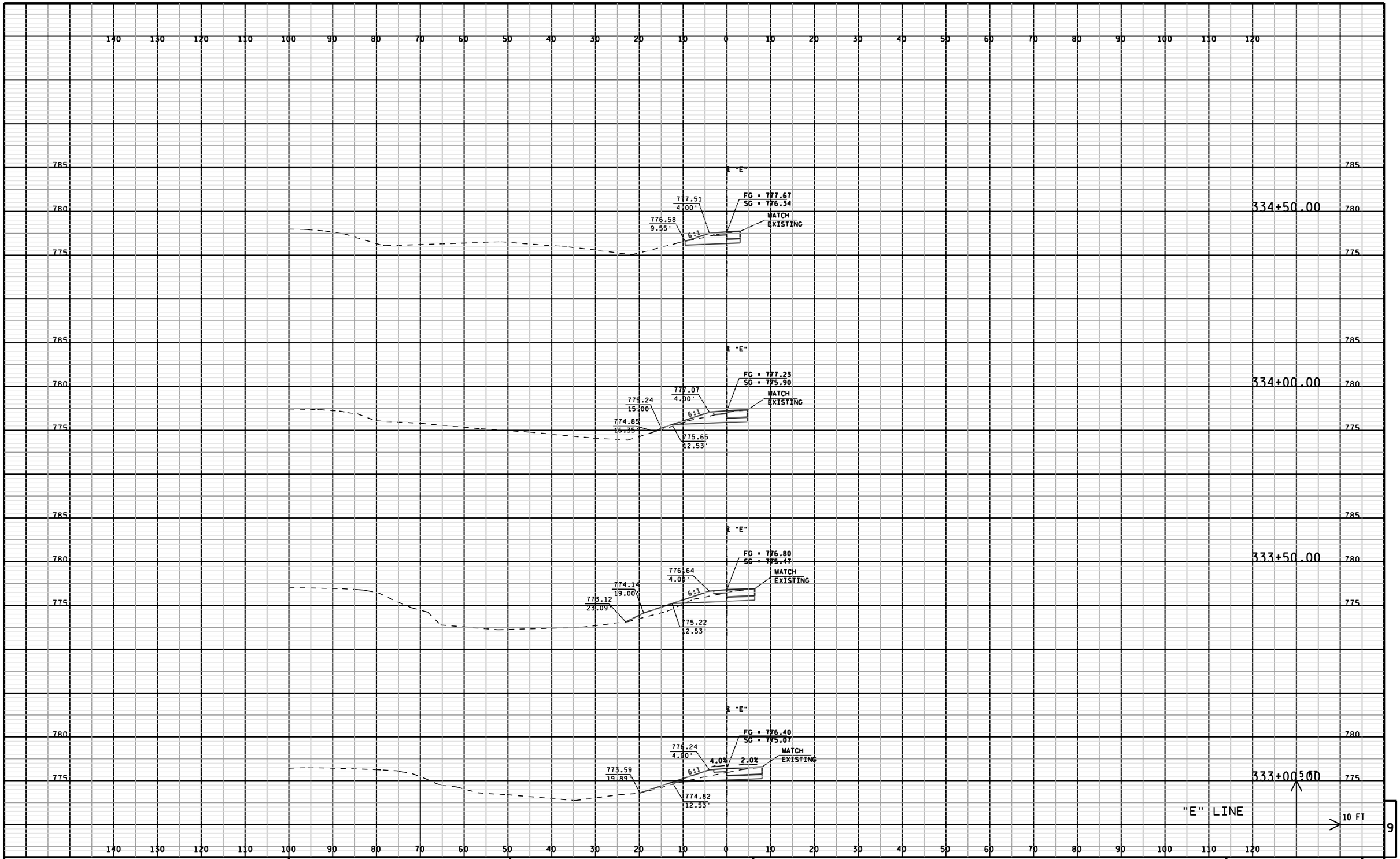
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:EASTBOUND RAMP STA. 331+50.00 TO 333+00.00	SHEET NO: 373	E

FILE NAME : p:/trans/

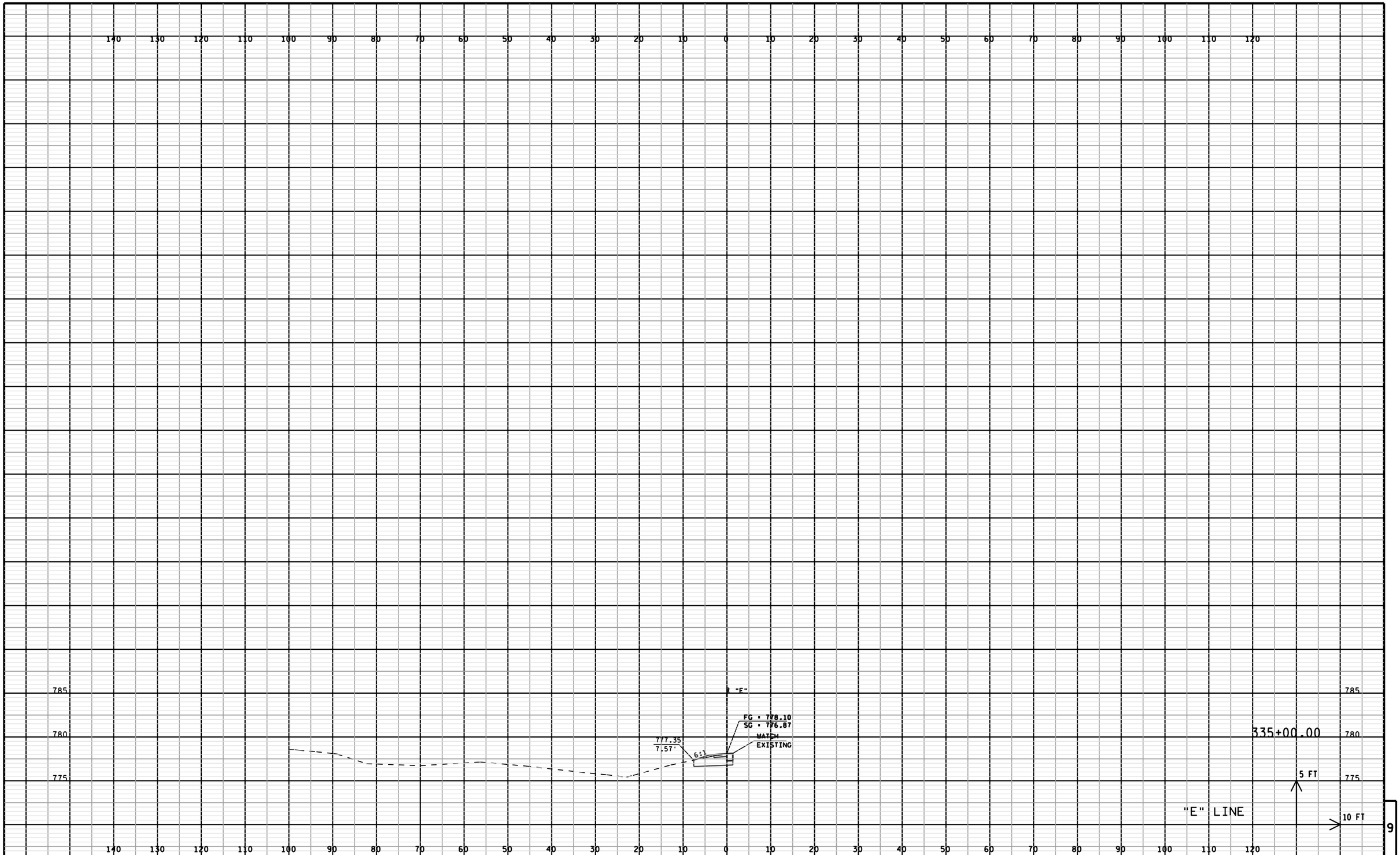
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS EASTBOUND RAMP STA. 333+50.00 TO 335+00.00	SHEET NO: 374	E

FILE NAME : p:/trans/

PLOT DATE:

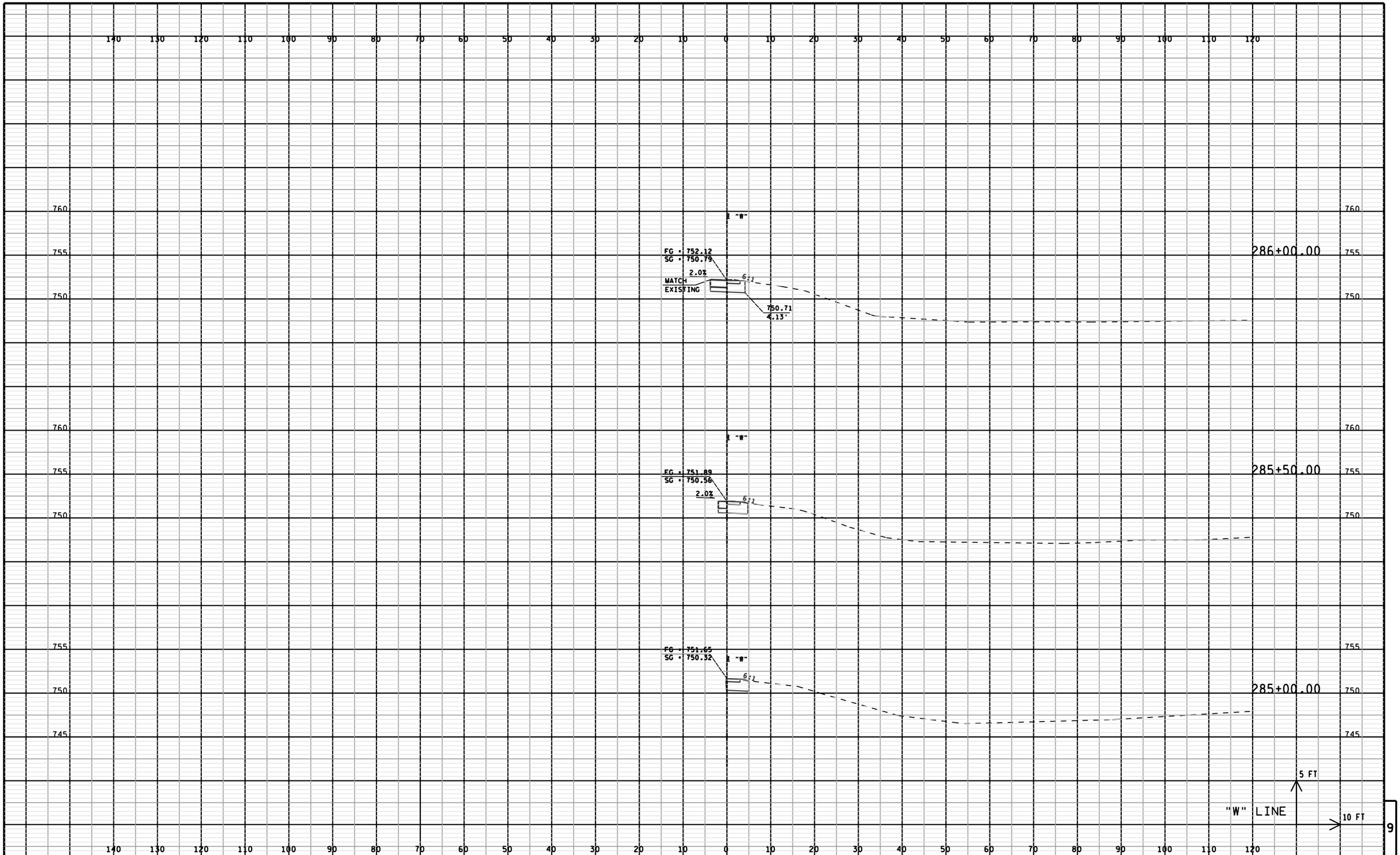


STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: EASTBOUND RAMP	SHEET NO: 375	E

9

FILE NAME : p:/trans/

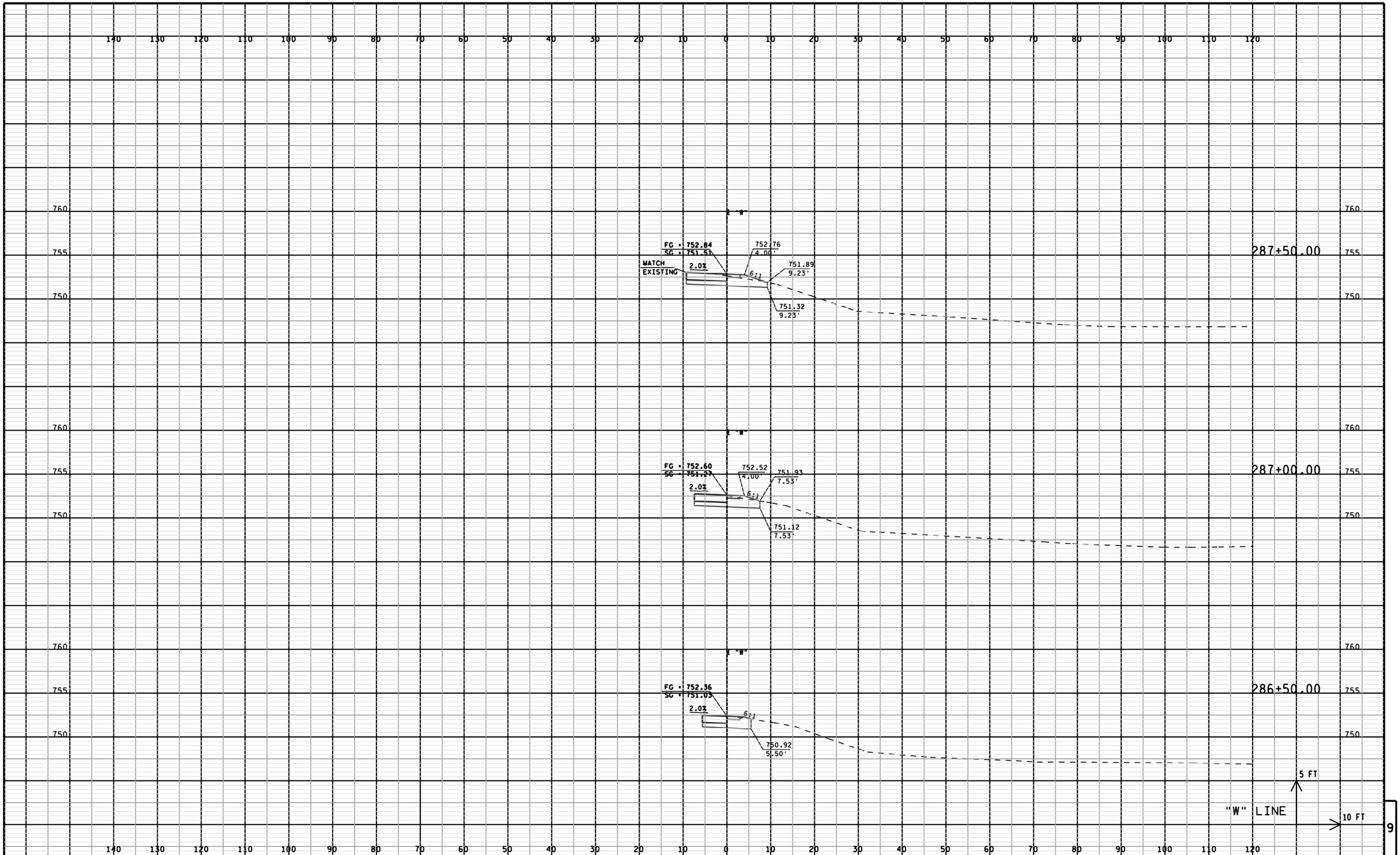
PLOT DATE:



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 285+00.00 TO 286+00.00	SHEET NO: 376	E

FILE NAME : p:/trans/

PLOT DATE:

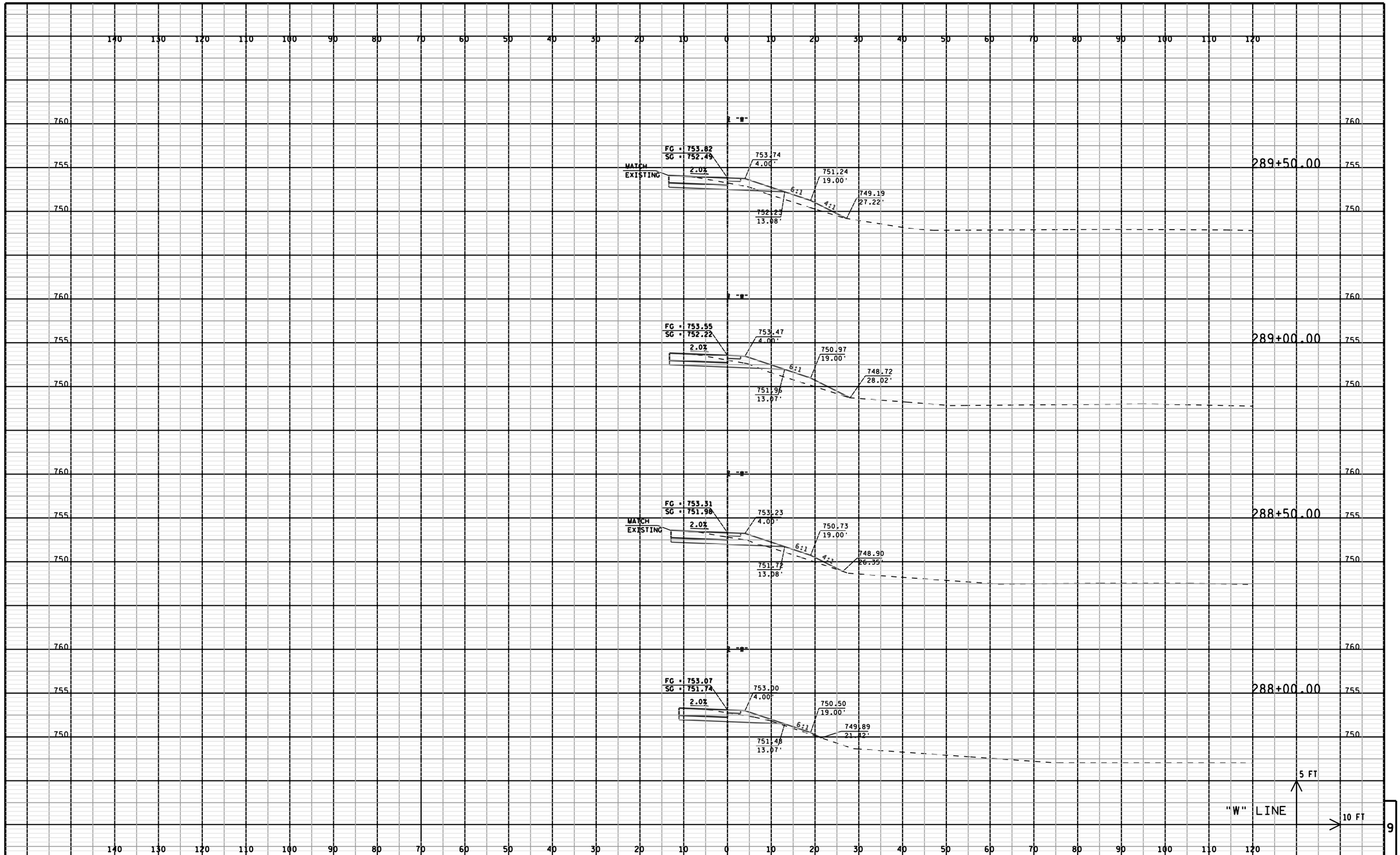


STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 286+50.00 TO 287+50.00	SHEET NO: 377	E

9

FILE NAME : p:/trans/

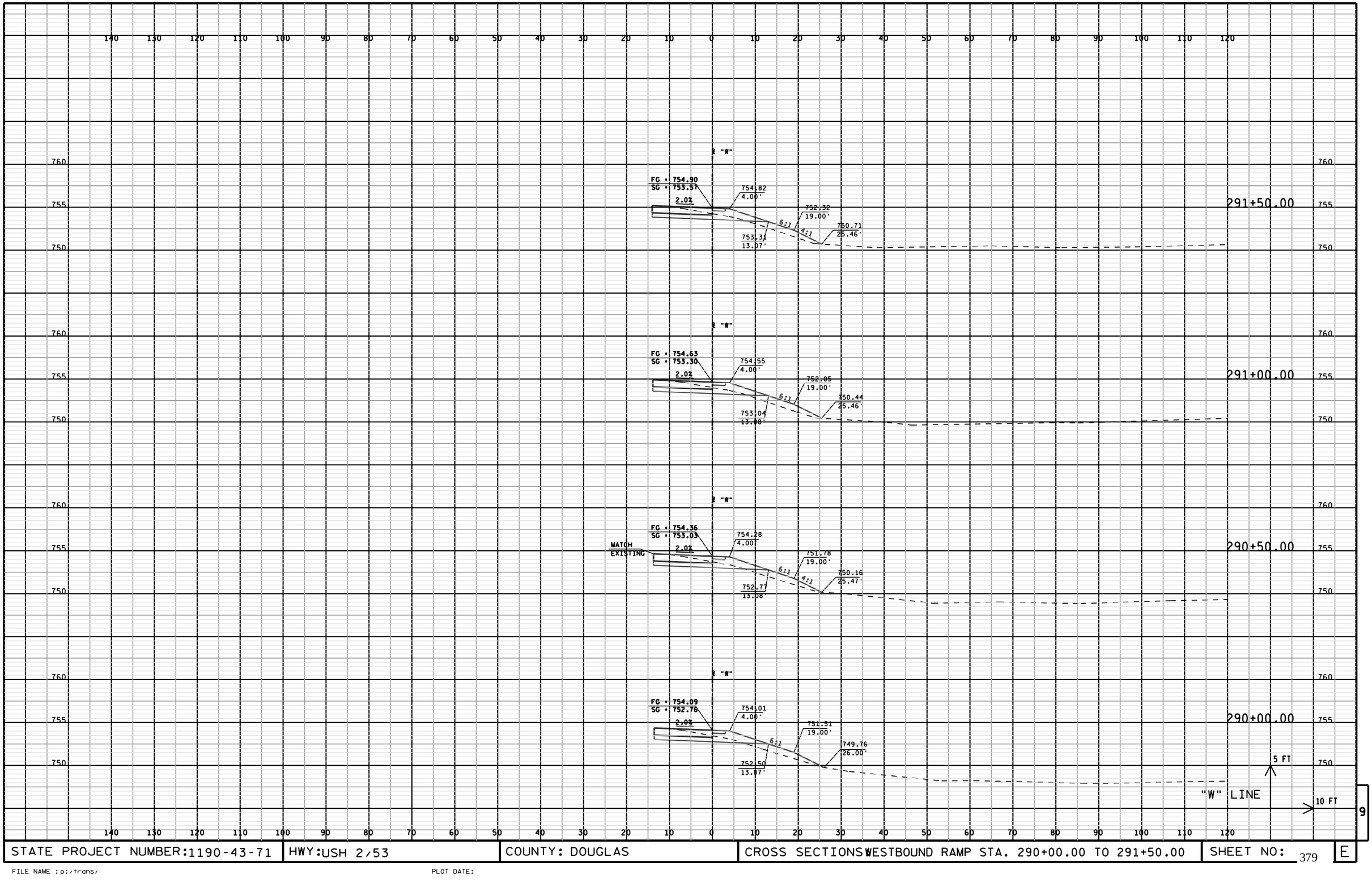
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 288+00.00 TO 289+50.00	SHEET NO: 378	E

FILE NAME : p:/trans/

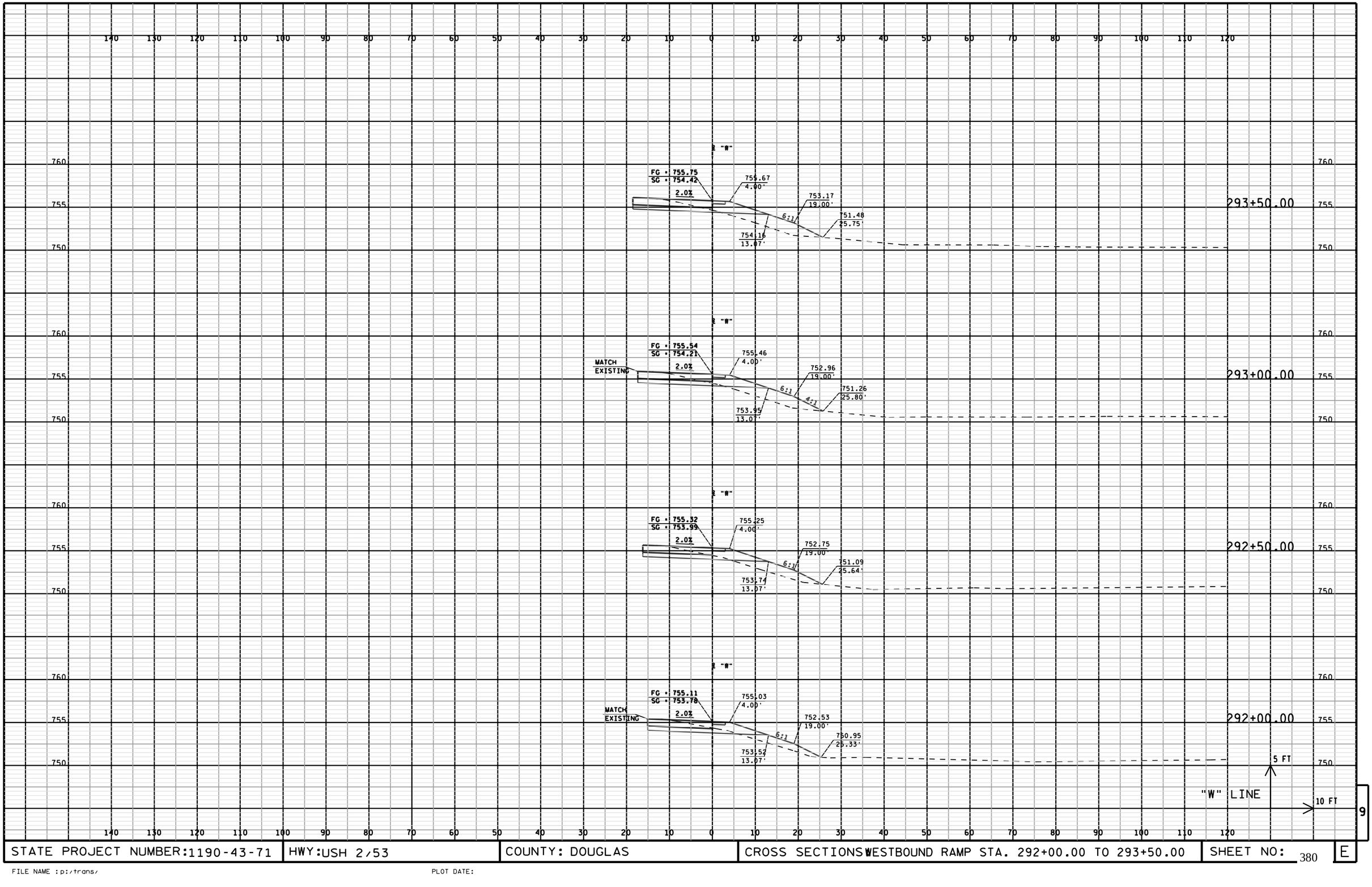
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 290+00.00 TO 291+50.00	SHEET NO: 379	E

FILE NAME : p:/trans/

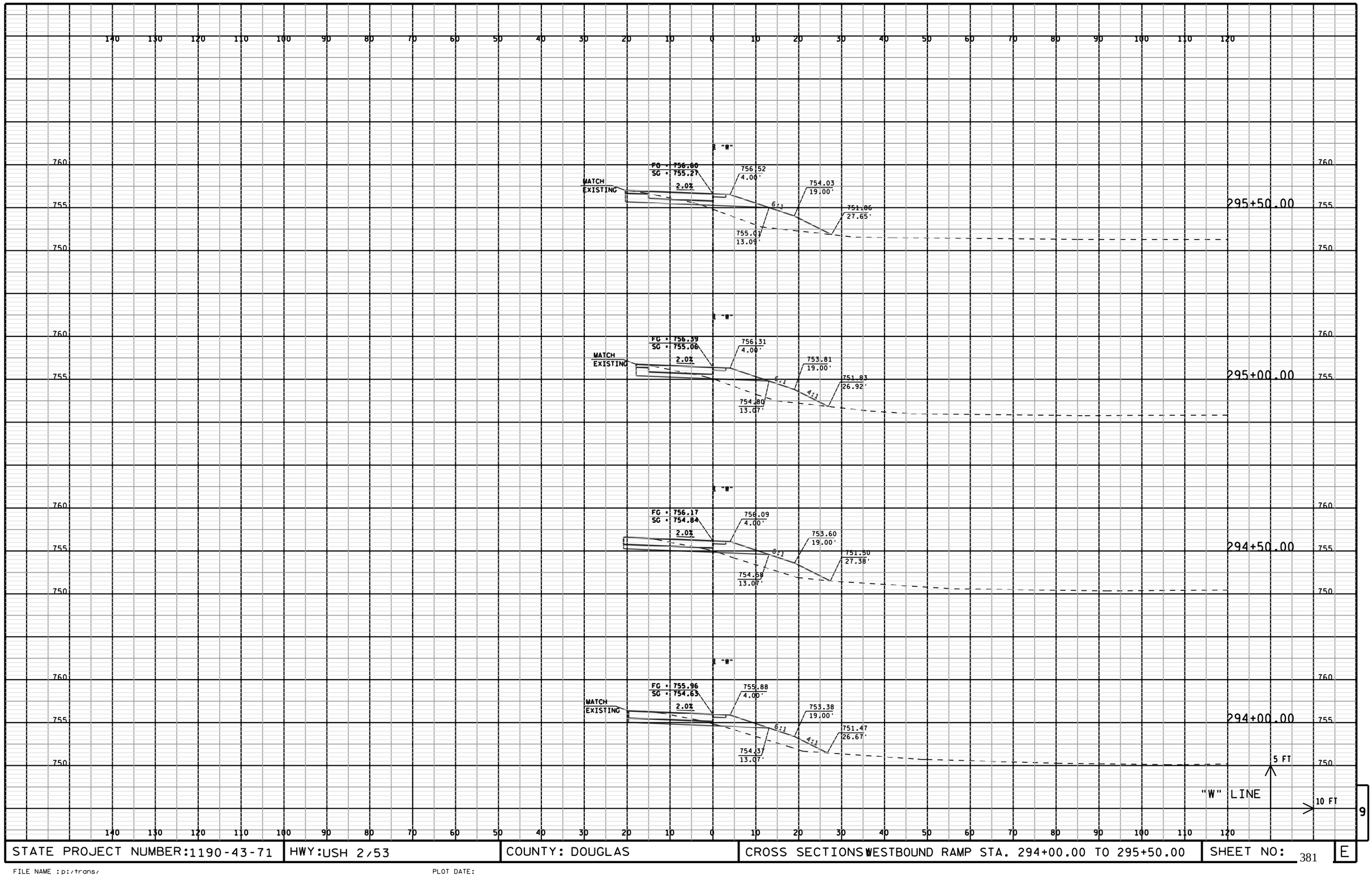
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 292+00.00 TO 293+50.00	SHEET NO: 380	E

FILE NAME : p:/trans/

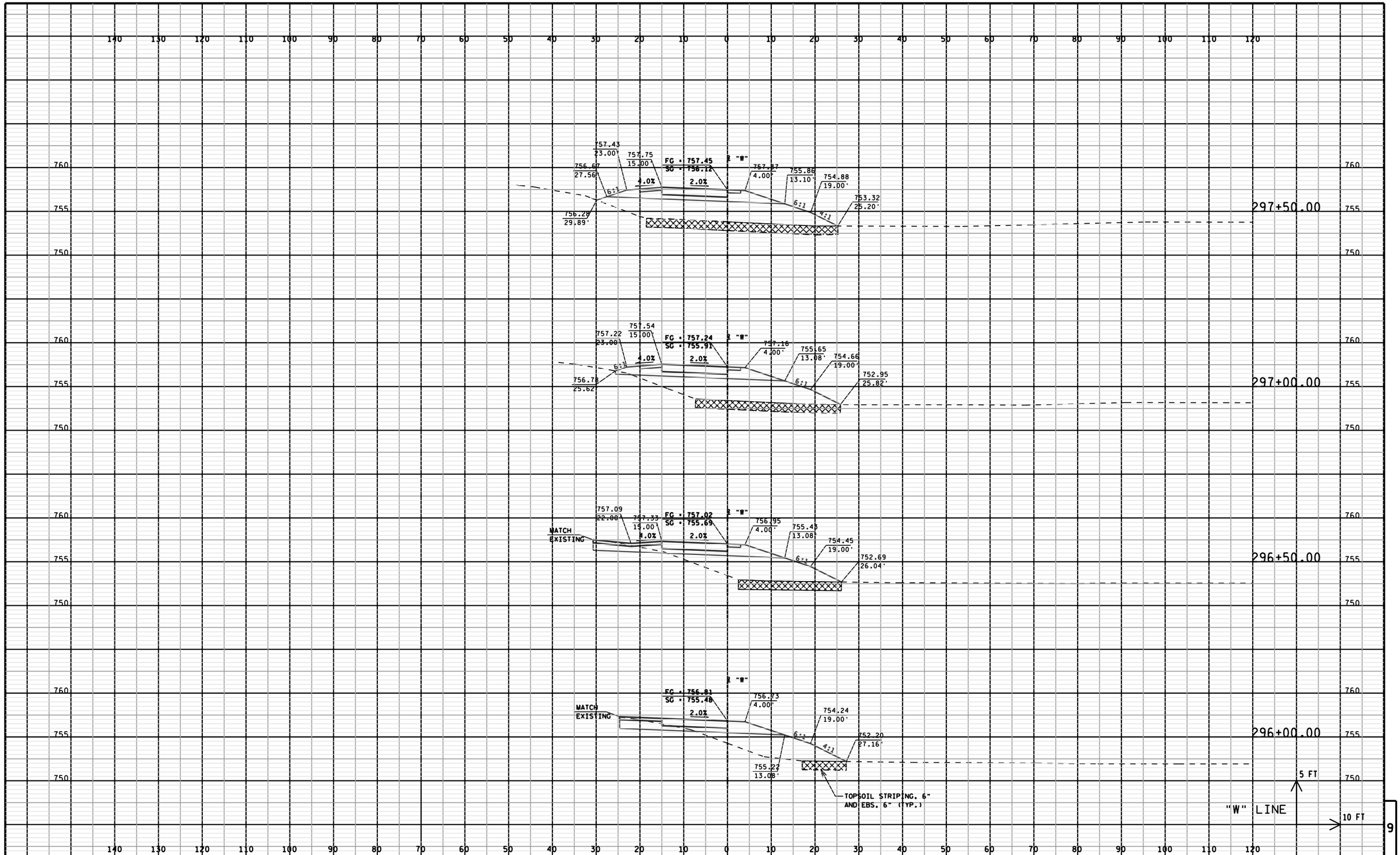
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 294+00.00 TO 295+50.00	SHEET NO: 381 E

FILE NAME : p:/trans/

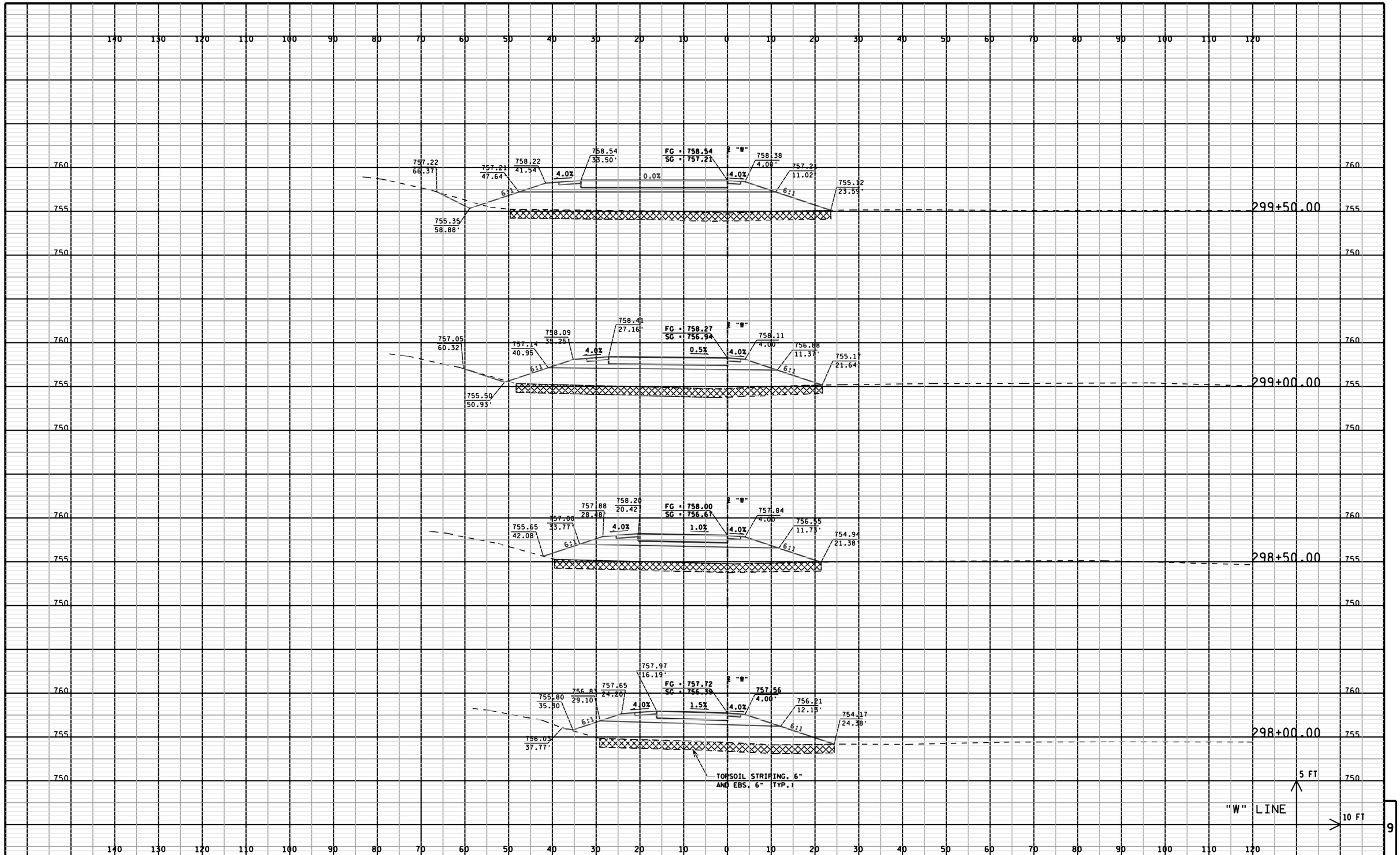
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 296+00.00 TO 297+50.00	SHEET NO: 9	E

FILE NAME : p:/trans/

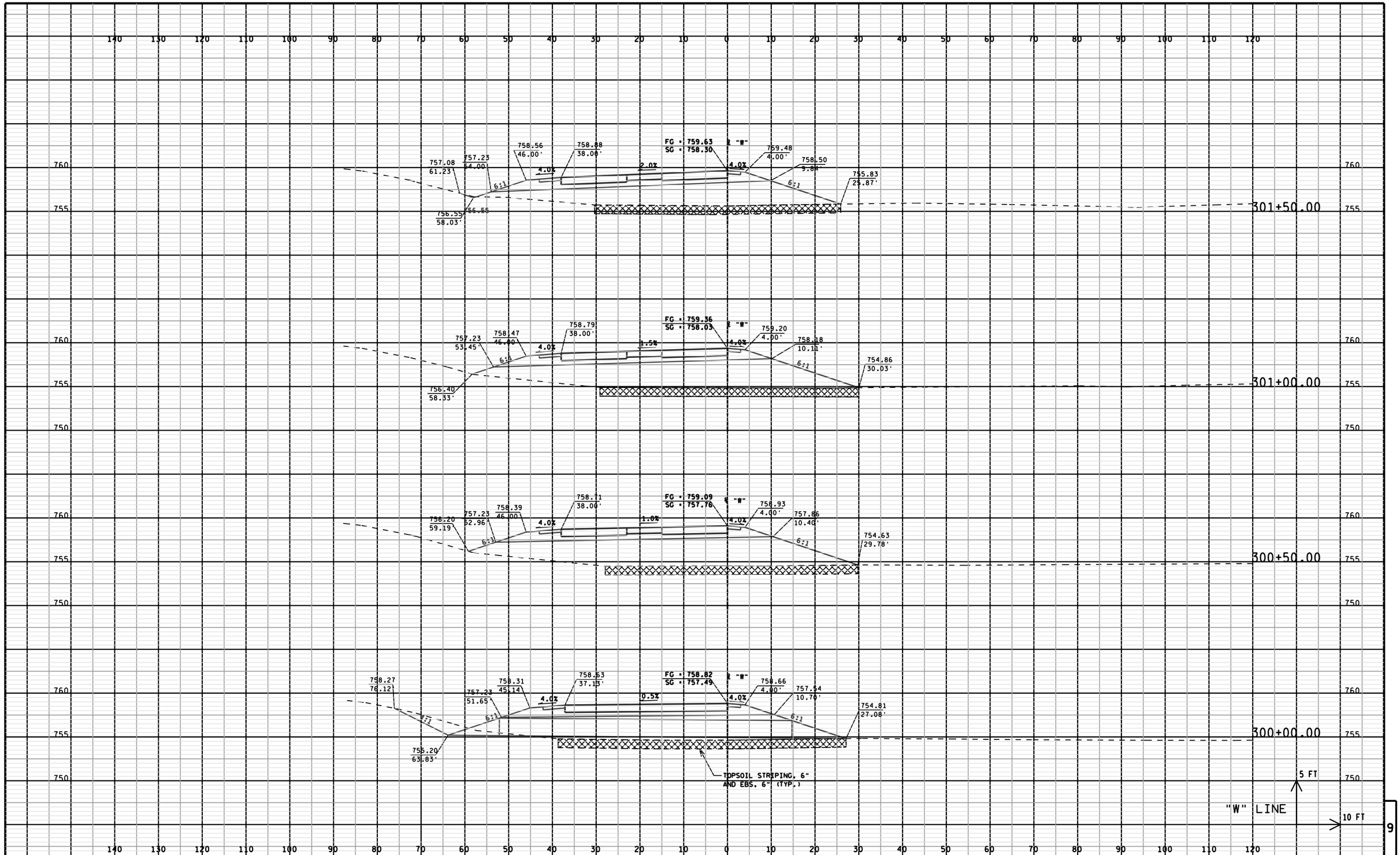
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 298+00.00 TO 299+50.00	SHEET NO: 383	E

FILE NAME : p:/trans/

PLOT DATE:

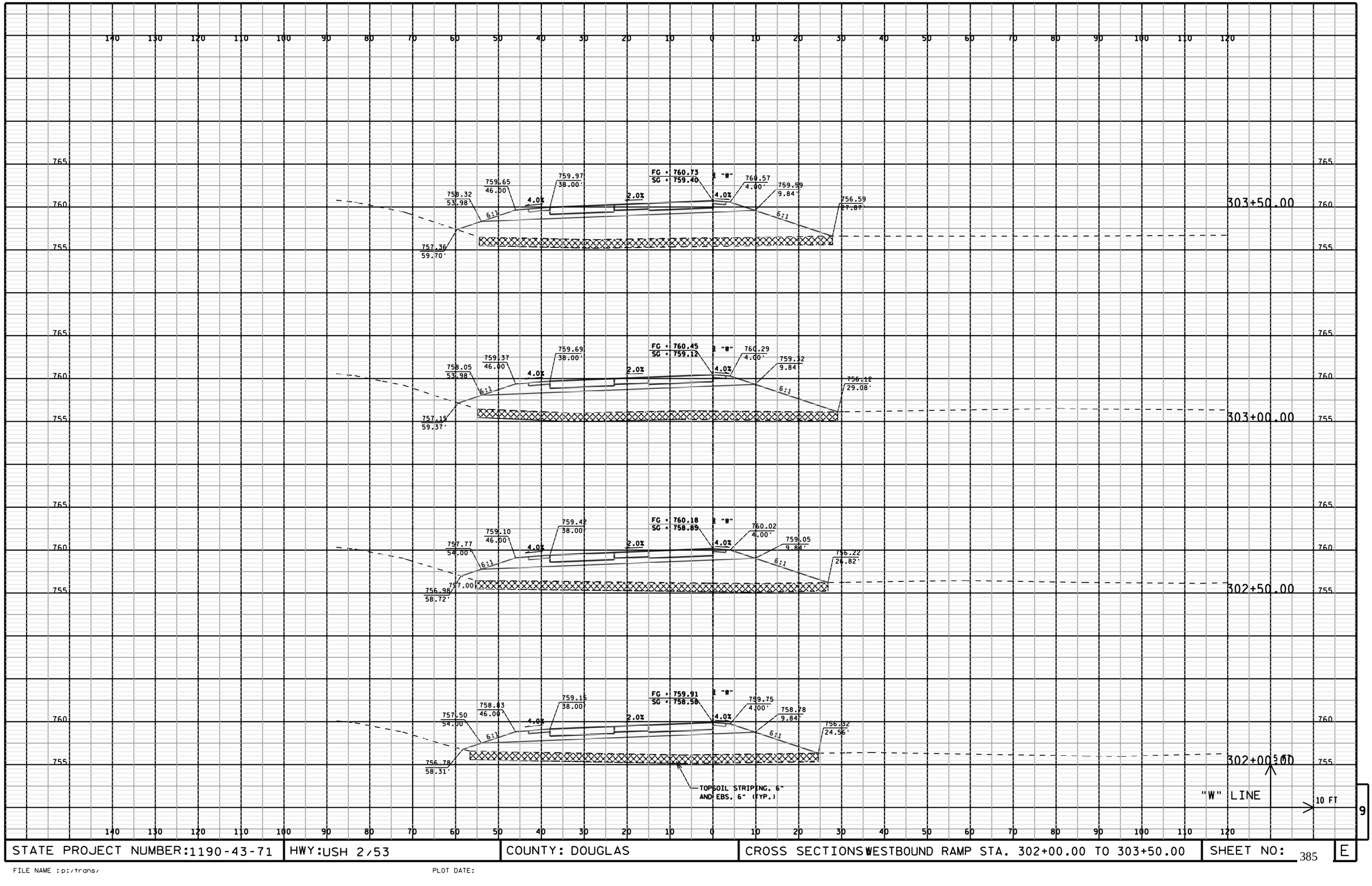


STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 300+00.00 TO 301+50.00	SHEET NO: 384	E

9

FILE NAME : p:/trans/

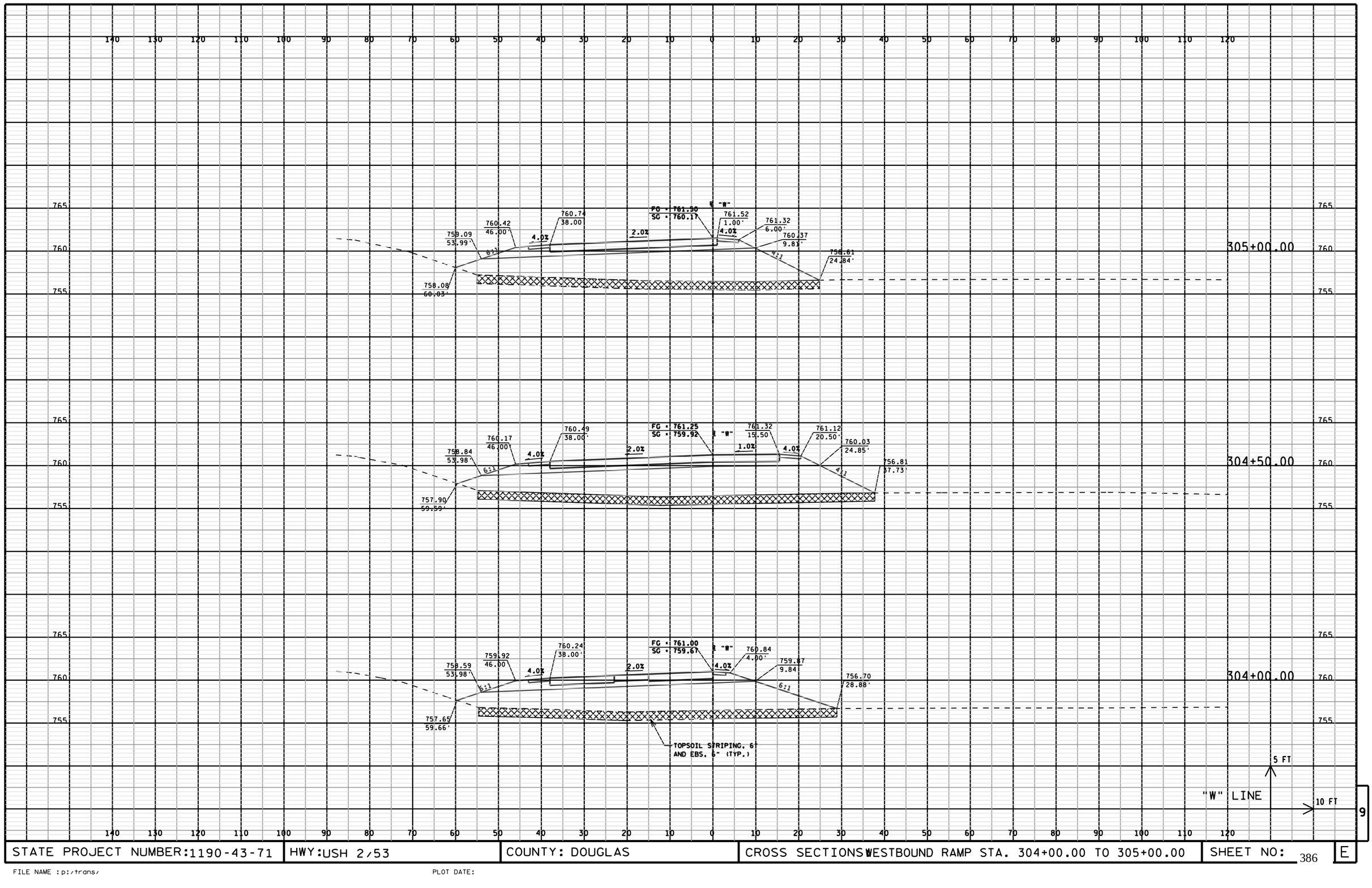
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 302+00.00 TO 303+50.00	SHEET NO: 385	E

FILE NAME : p:/trans/

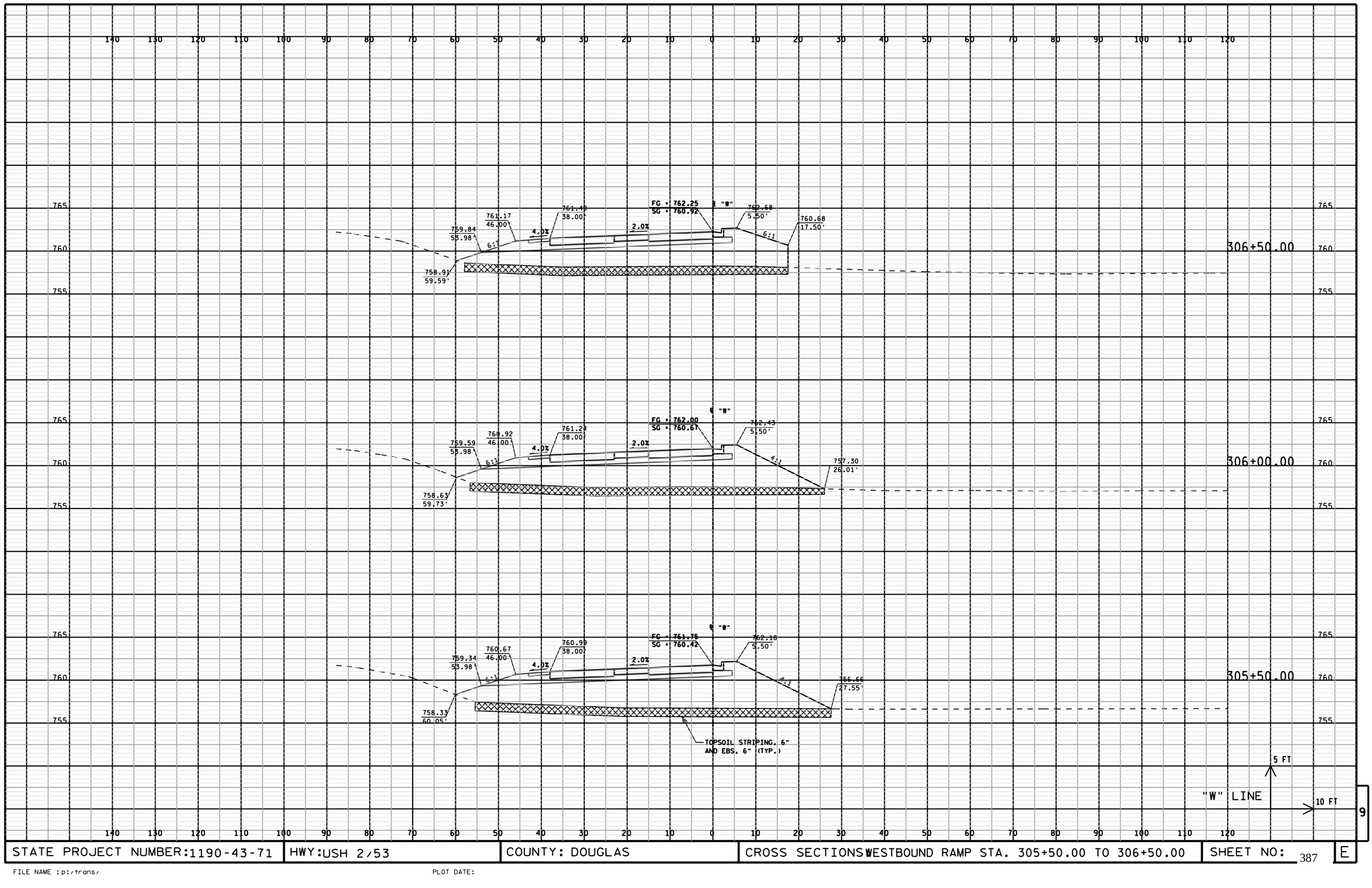
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 304+00.00 TO 305+00.00	SHEET NO: 386 E

FILE NAME : p:/trans/

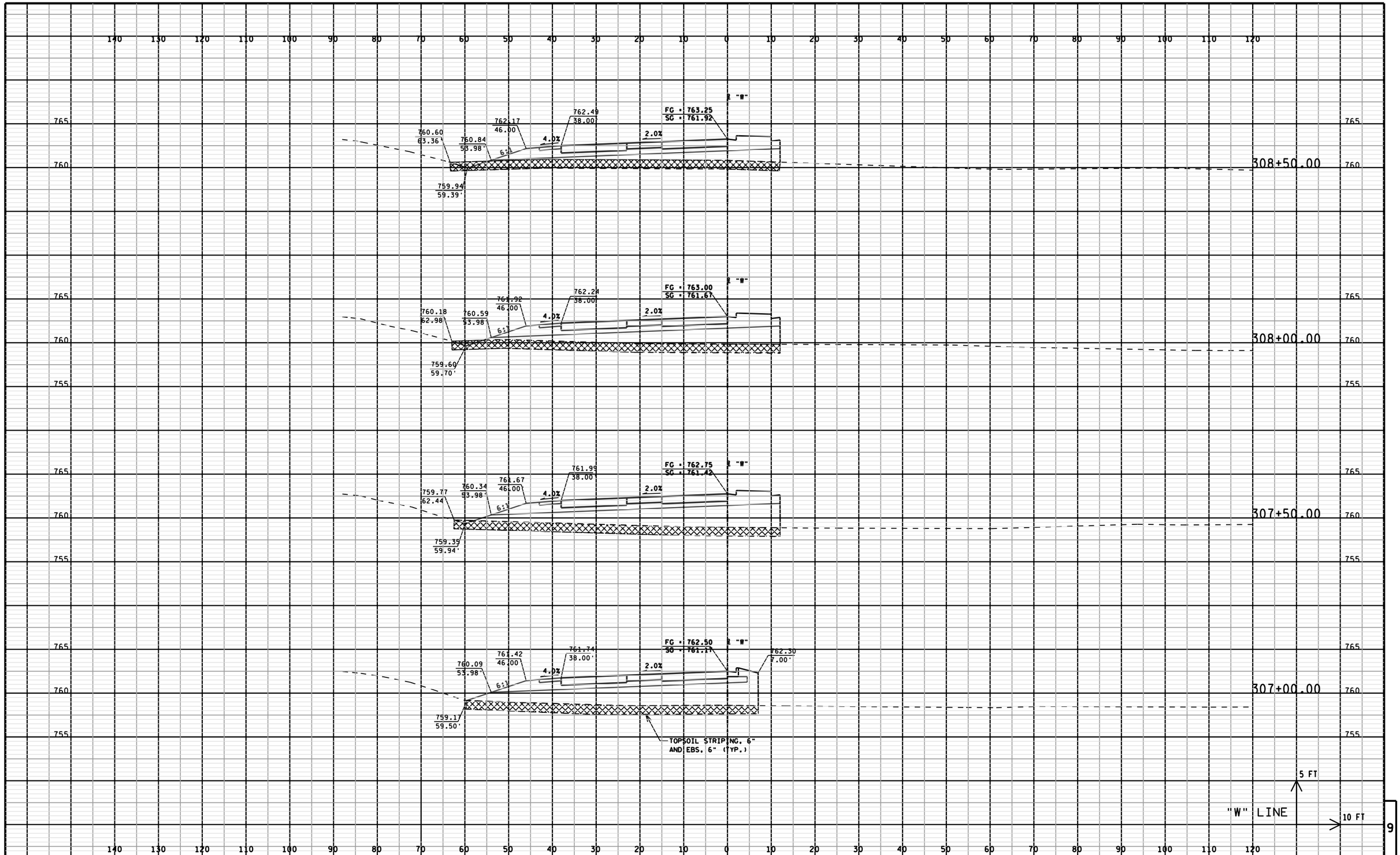
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 305+50.00 TO 306+50.00	SHEET NO: 387 E

FILE NAME : p:/trans/

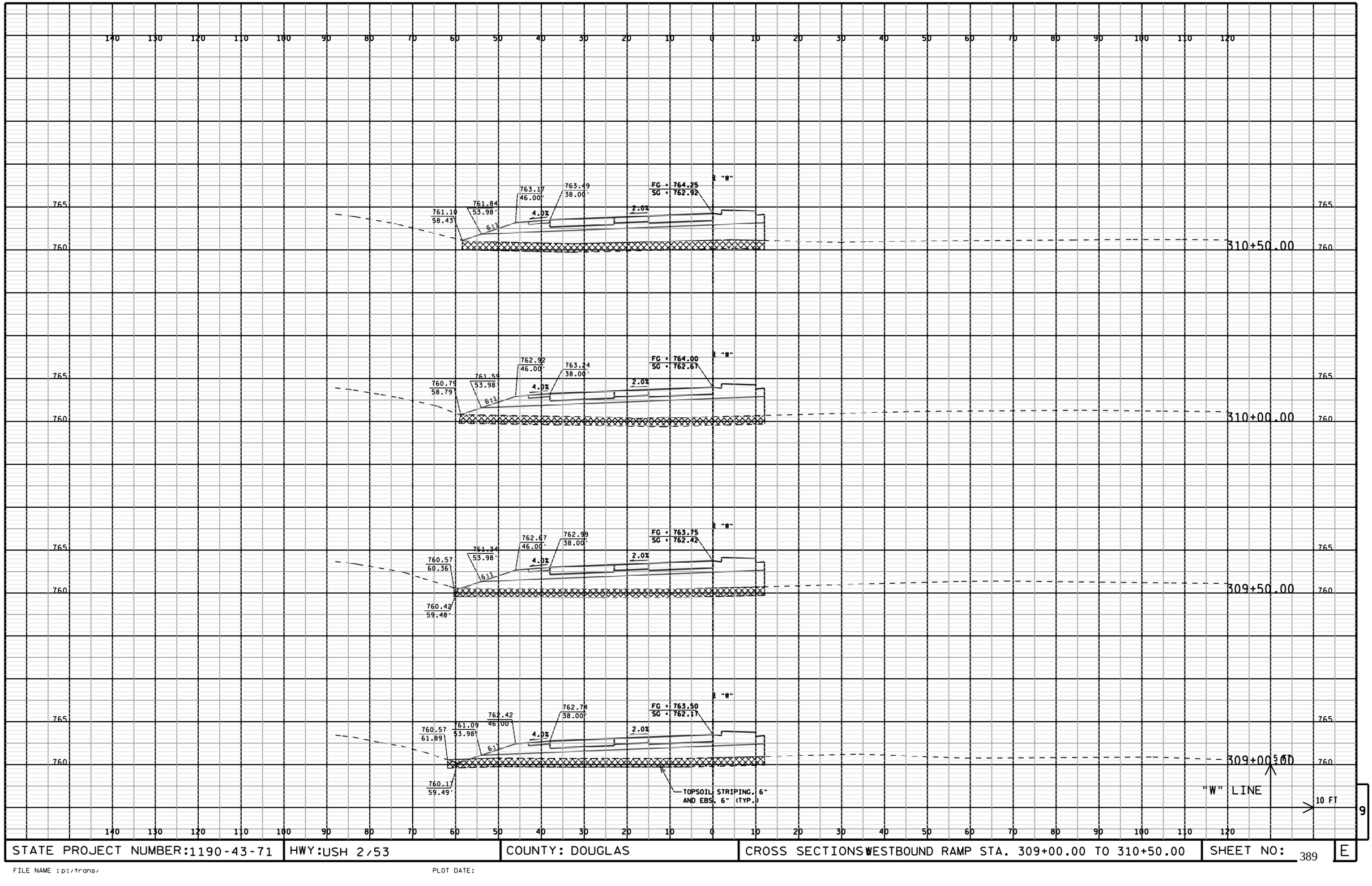
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 307+00.00 TO 308+50.00	SHEET NO: 388	E

FILE NAME : p:/trans/

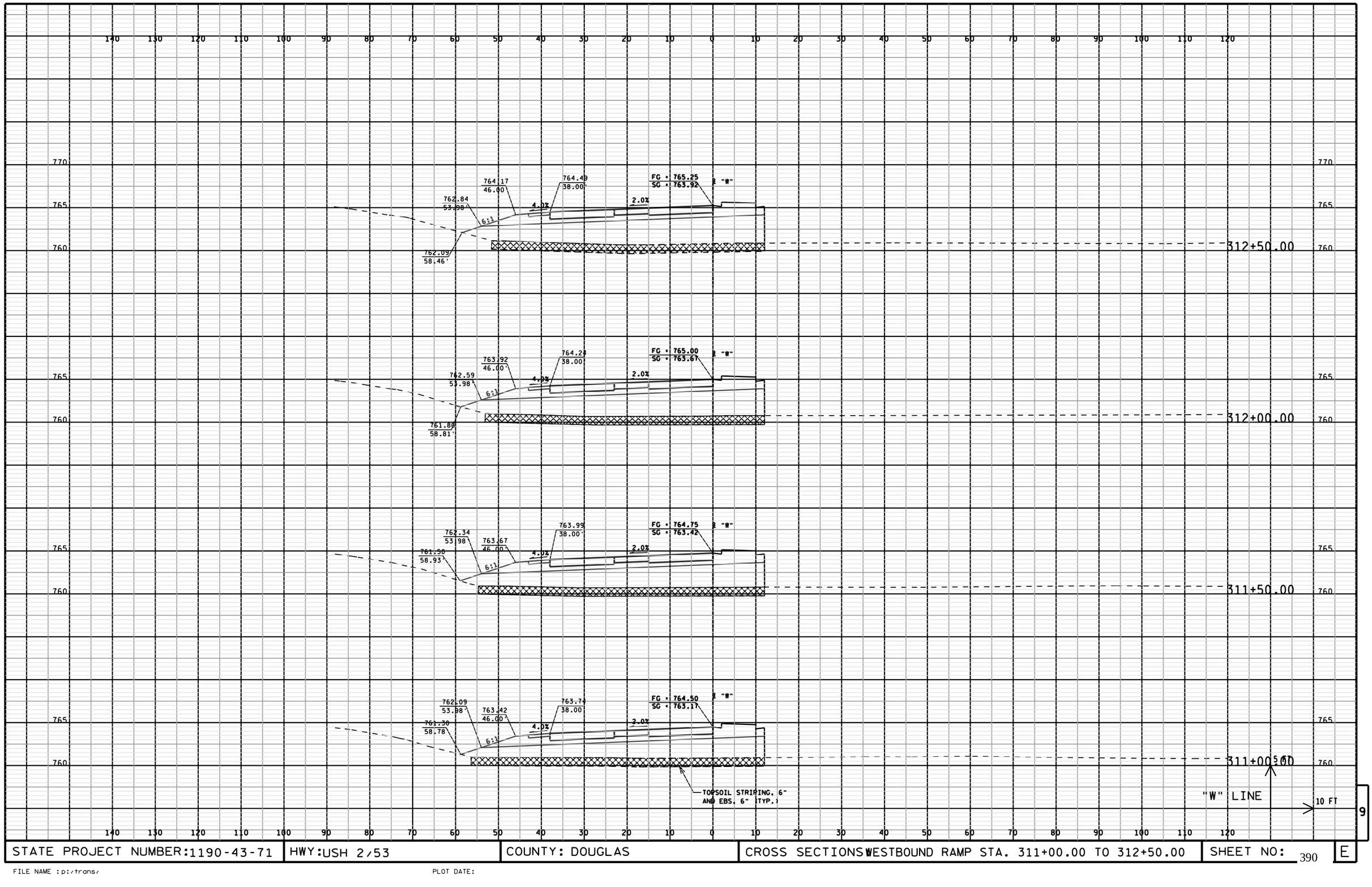
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 309+00.00 TO 310+50.00	SHEET NO: 389 E

FILE NAME : p:/trans/

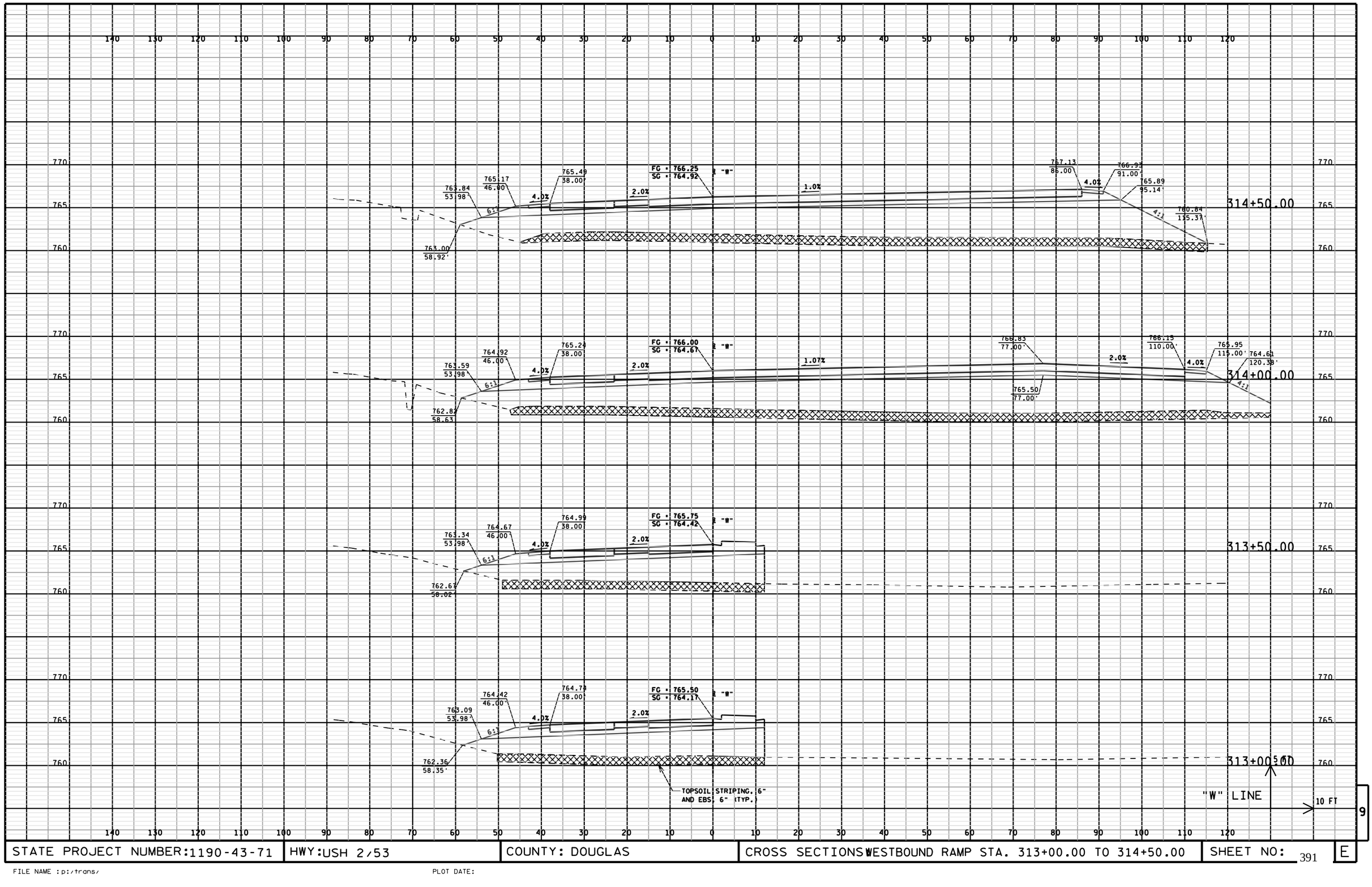
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 311+00.00 TO 312+50.00	SHEET NO: 390	E

FILE NAME : p:/trans/

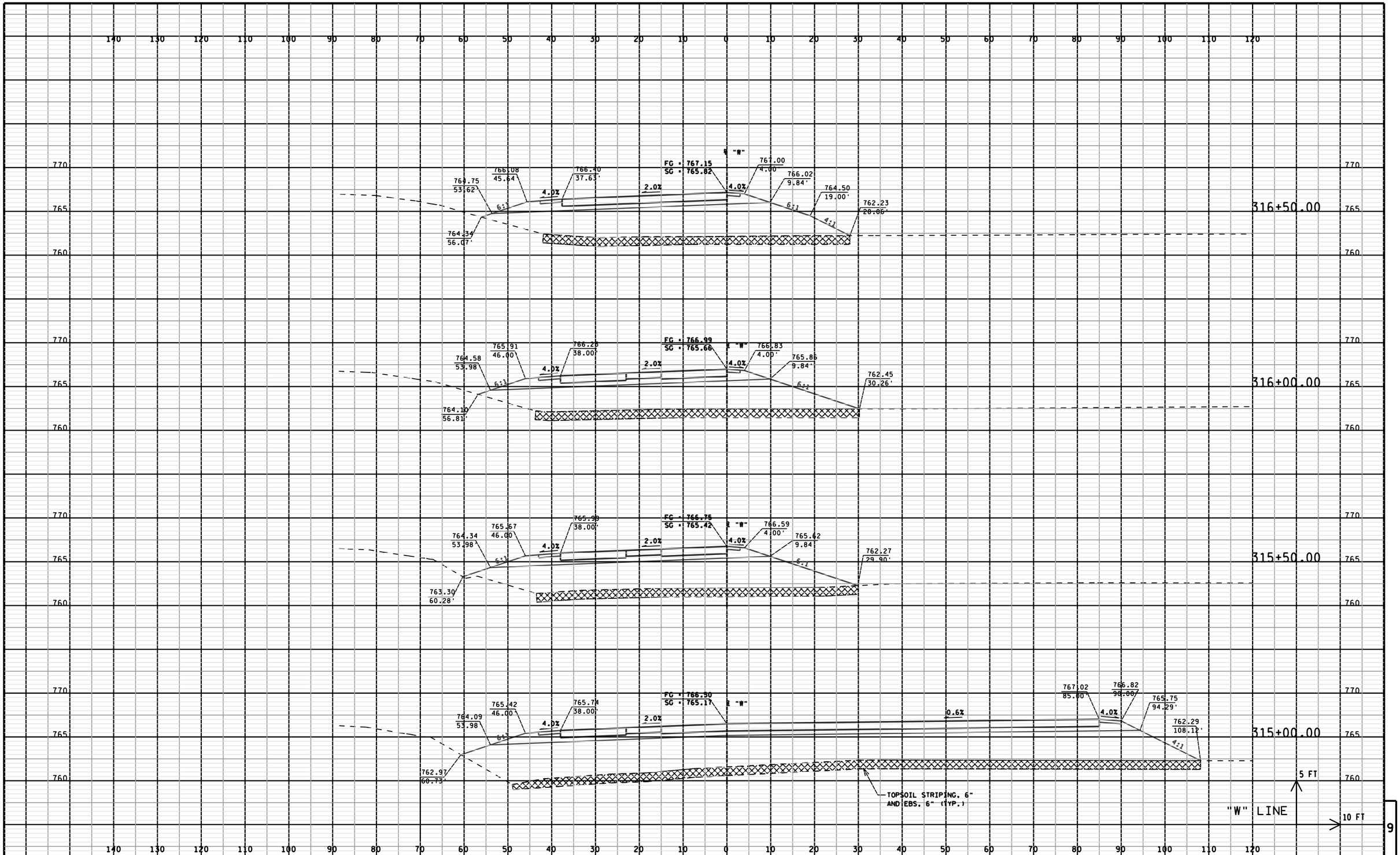
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 313+00.00 TO 314+50.00	SHEET NO: 391	E

FILE NAME : p:/trans/

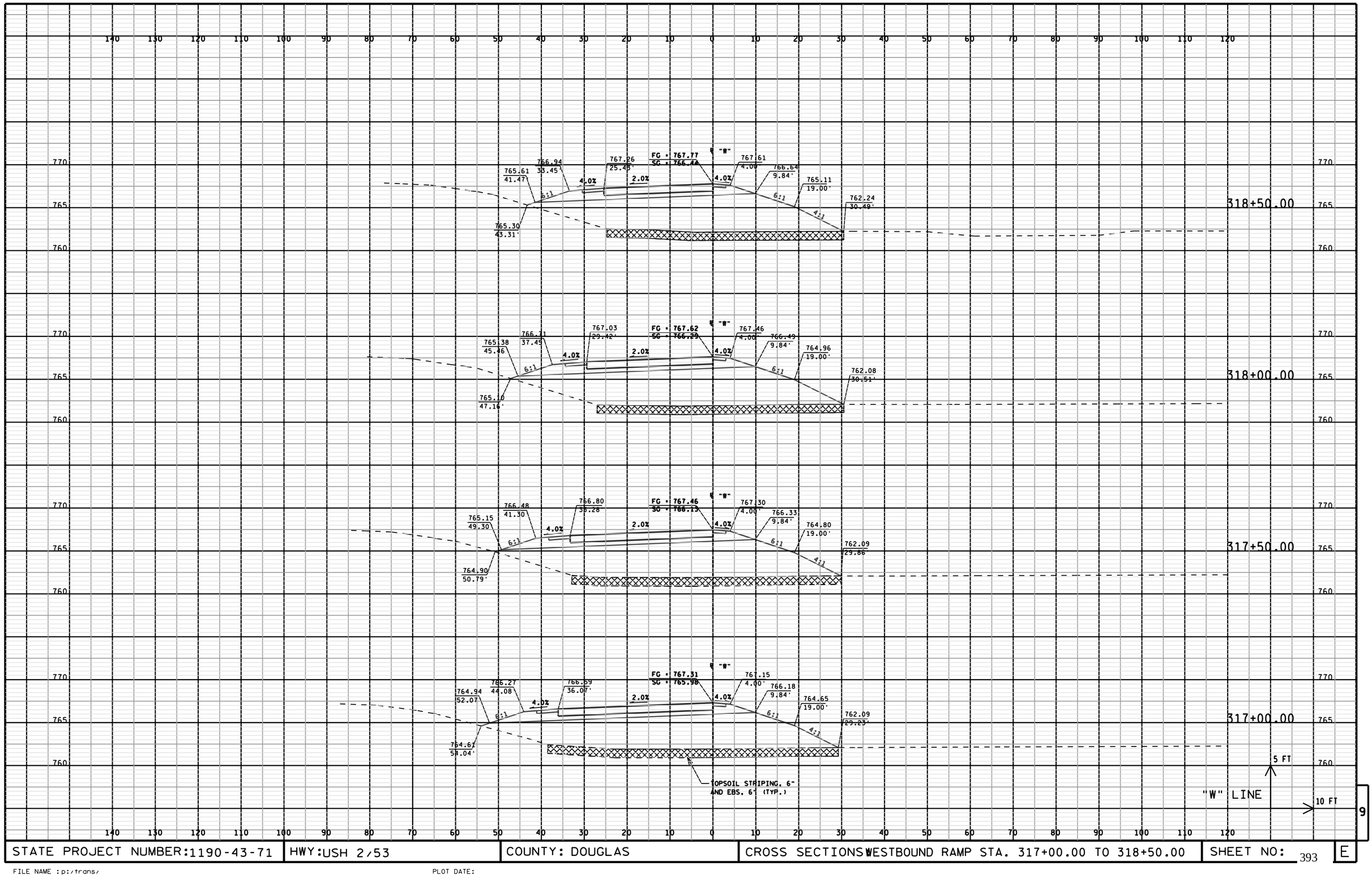
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 315+00.00 TO 316+50.00	SHEET NO: 392	E

FILE NAME : p:/trans/

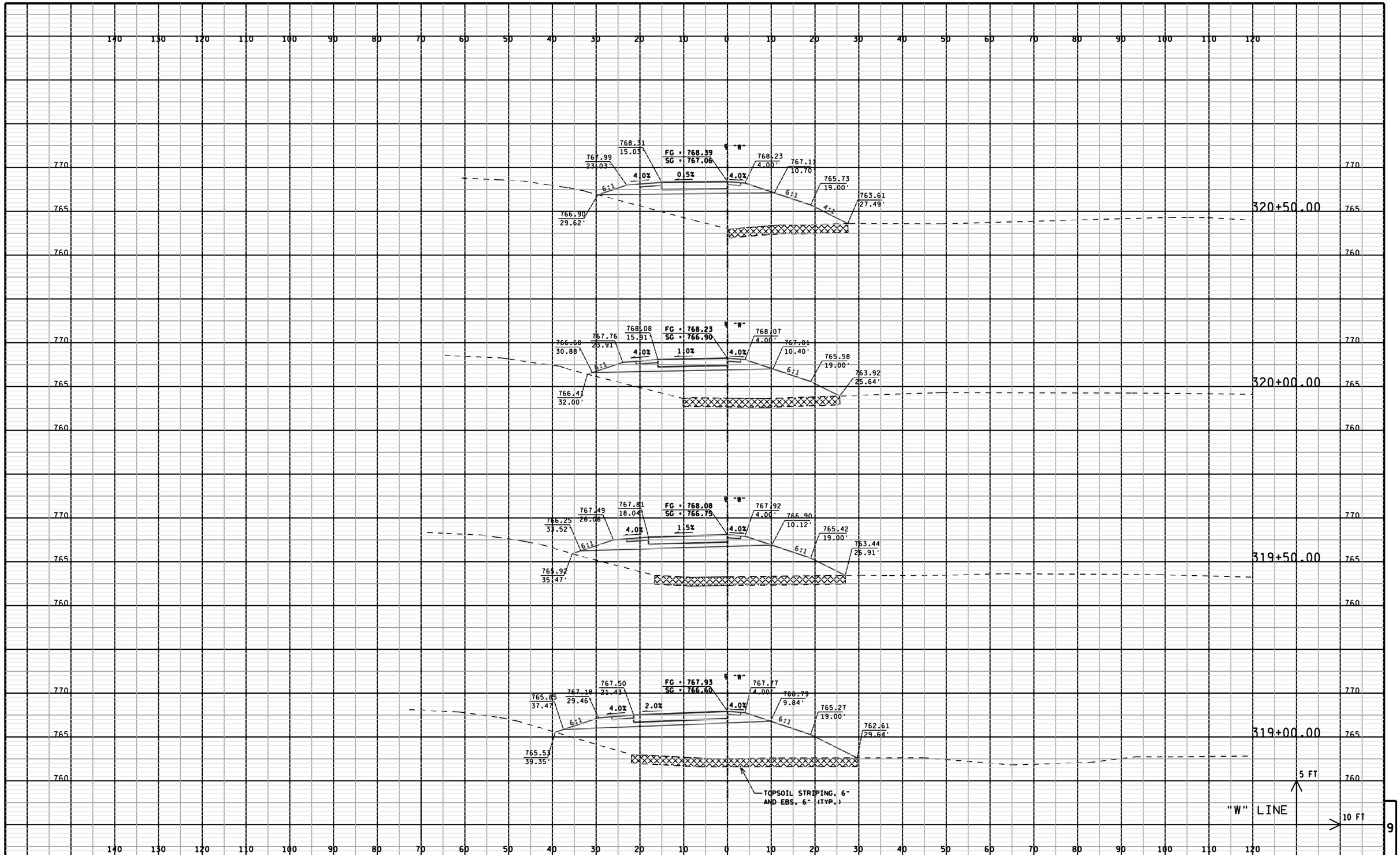
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 317+00.00 TO 318+50.00	SHEET NO: 393	E

FILE NAME : p:/trans/

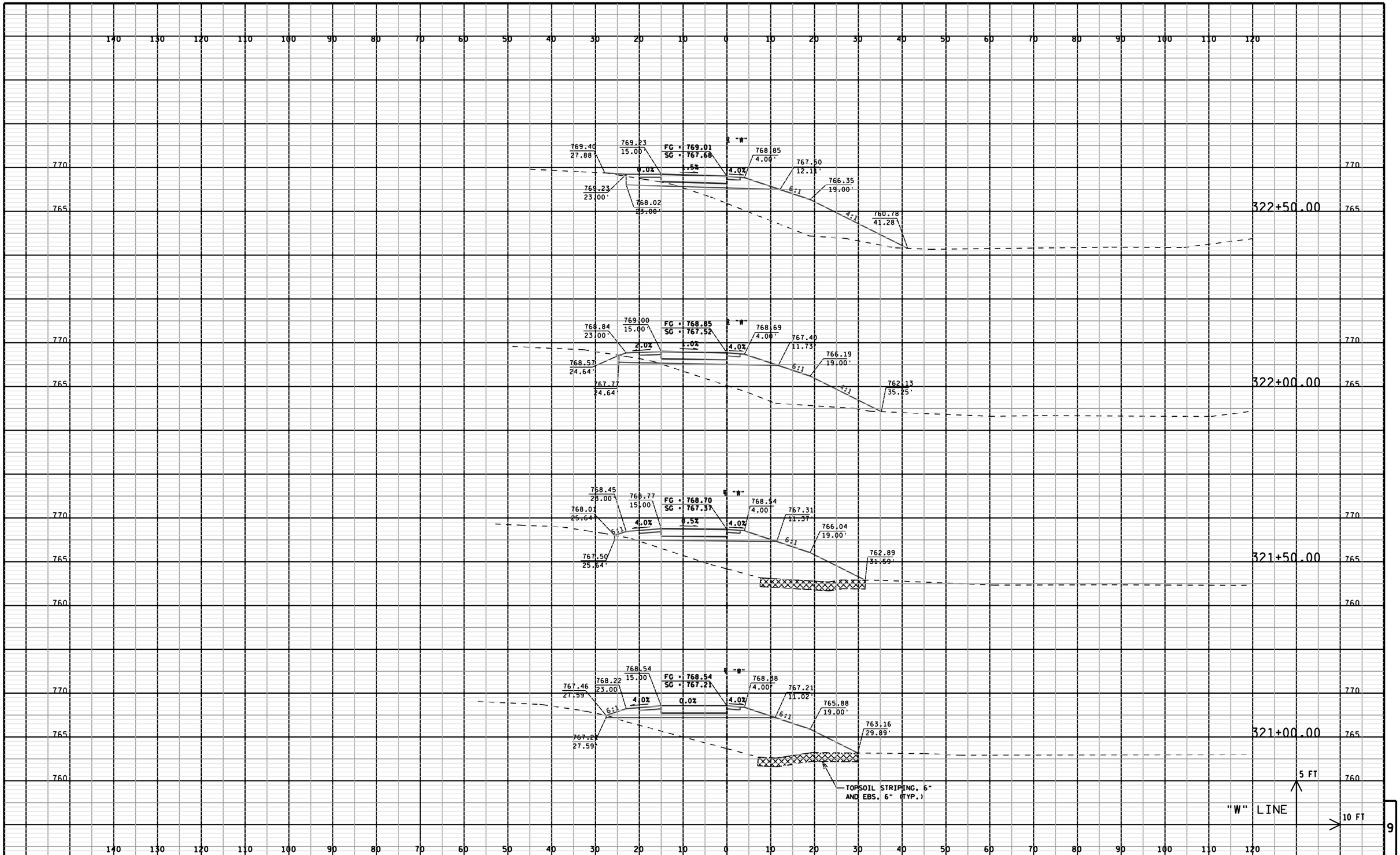
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 319+00.00 TO 320+50.00	SHEET NO: 394	E

FILE NAME : p:/trans/

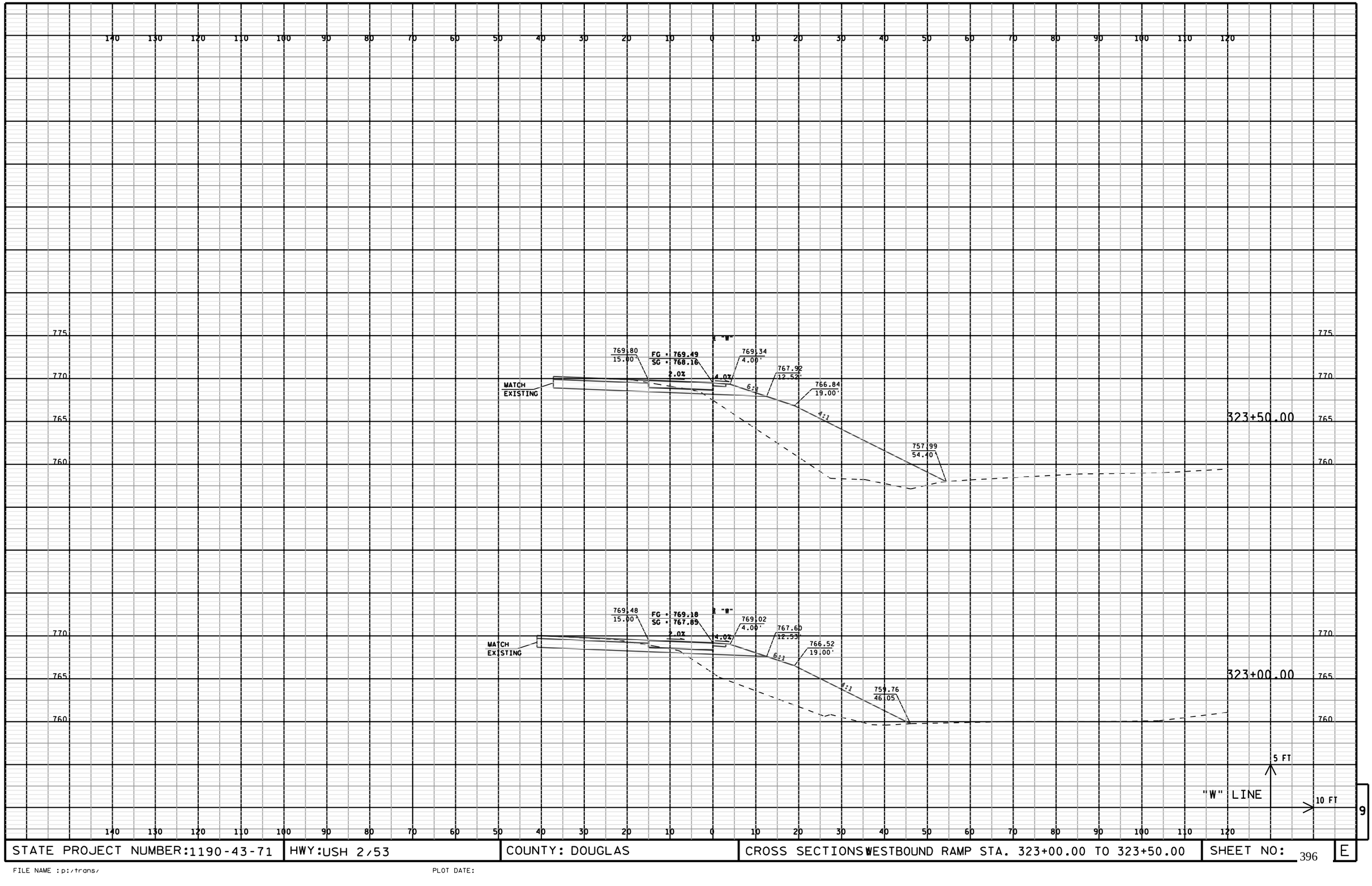
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 321+00.00 TO 322+50.00	SHEET NO: 395	E

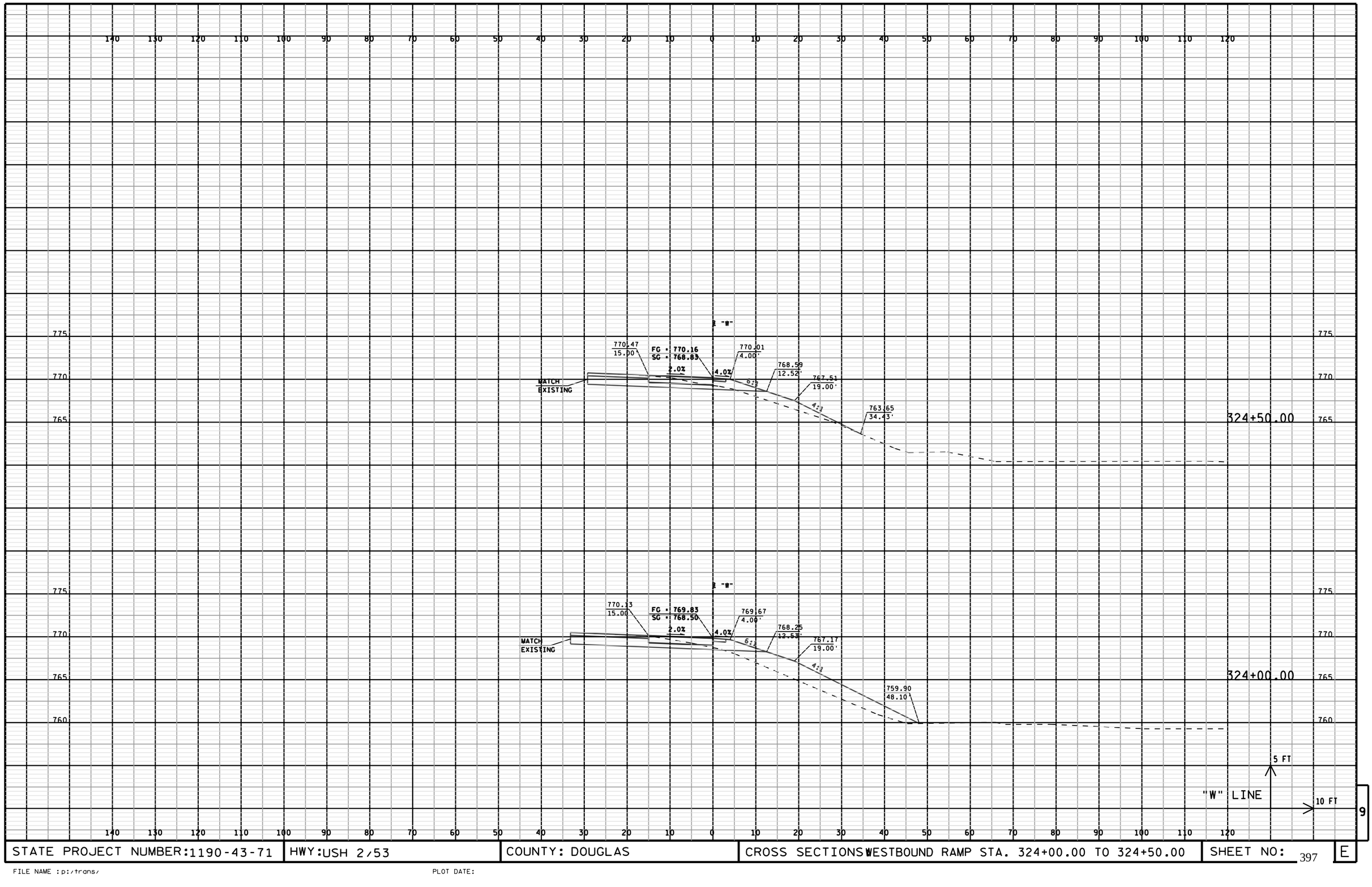
FILE NAME : p:/trans/

PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 323+00.00 TO 323+50.00	SHEET NO: 396 E

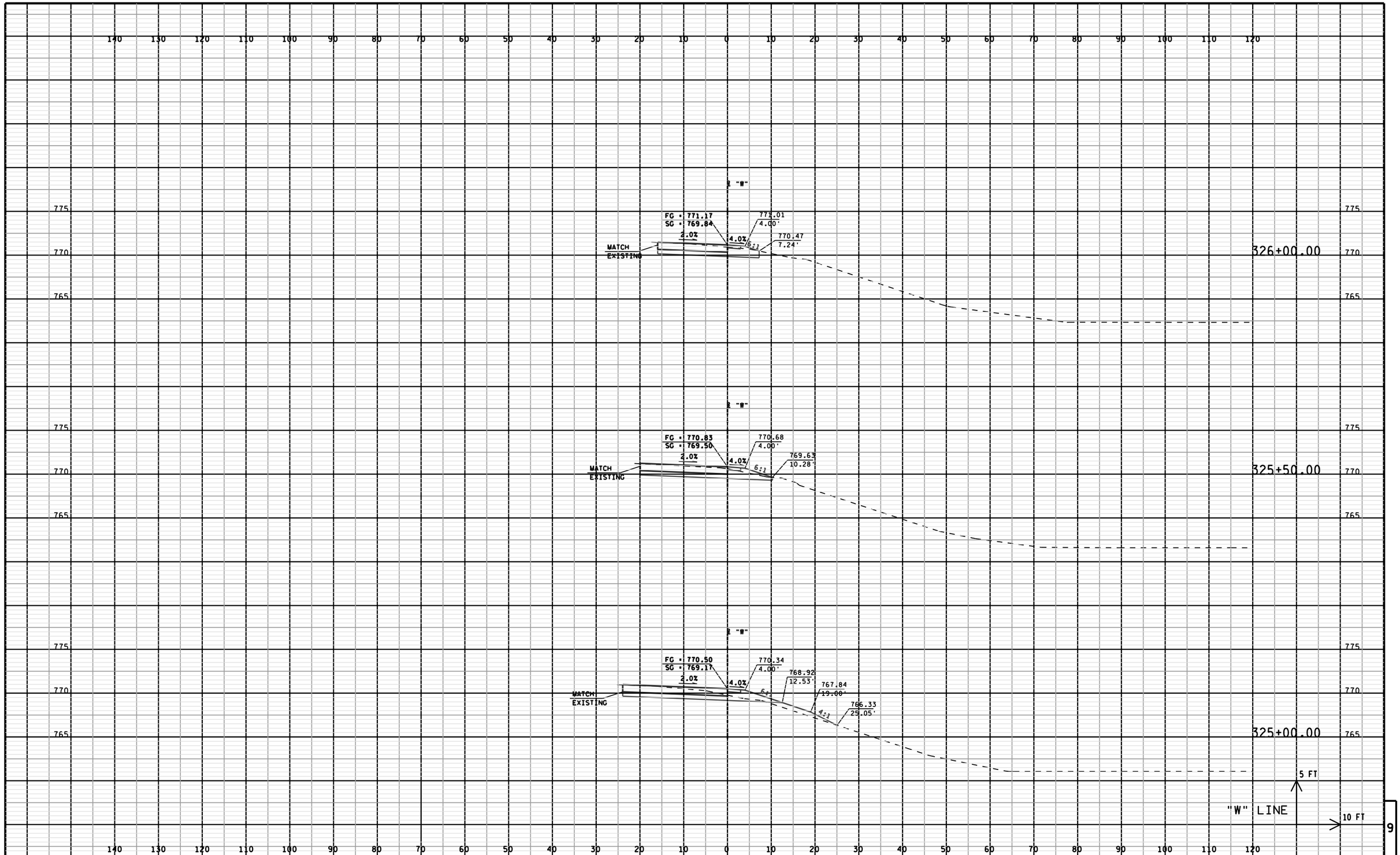
FILE NAME : p:/trans/ PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 324+00.00 TO 324+50.00	SHEET NO: 397	E

FILE NAME : p:/trans/

PLOT DATE:

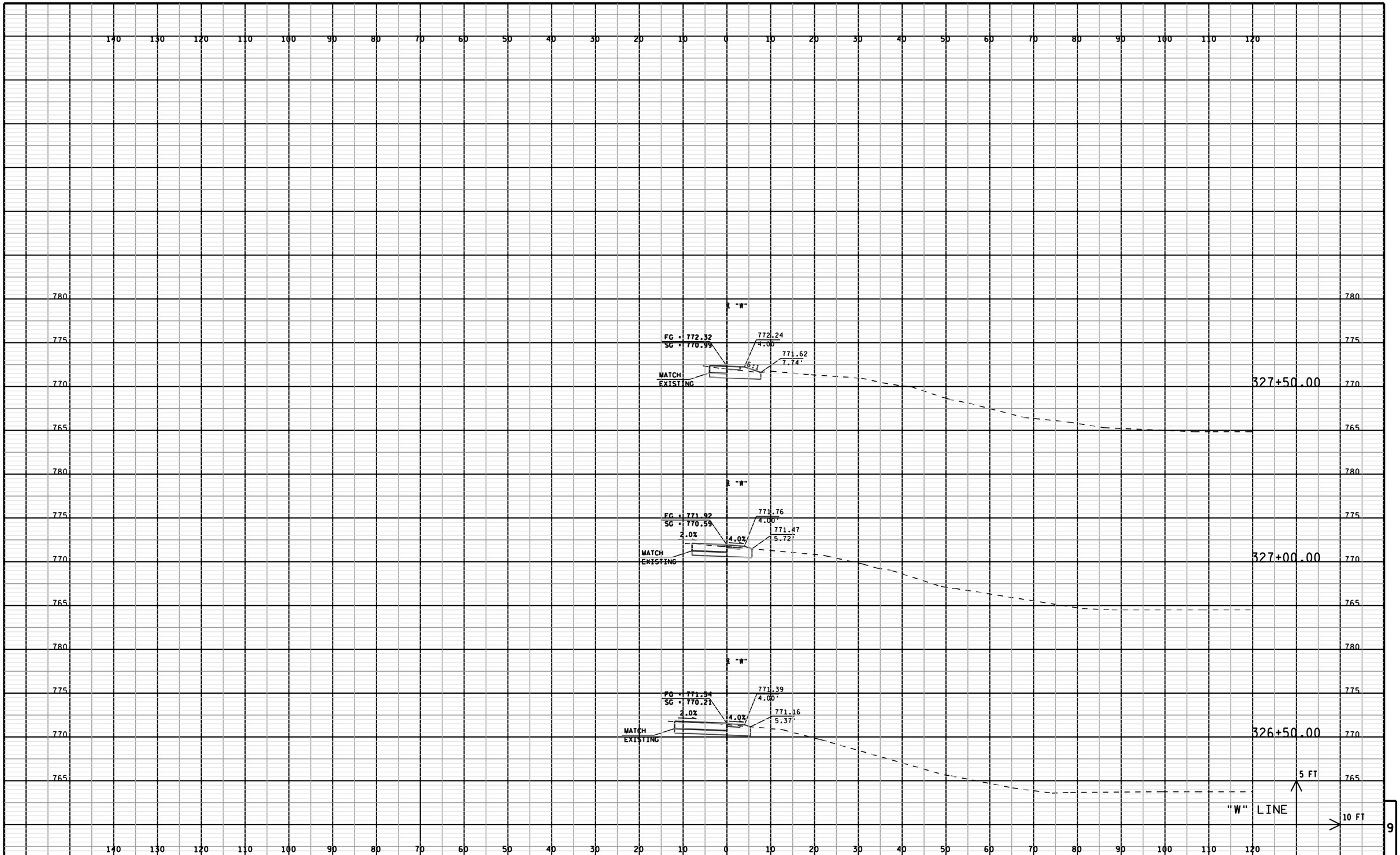


STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 325+00.00 TO 326+00.00	SHEET NO: 398	E

9

FILE NAME : p:/trans/

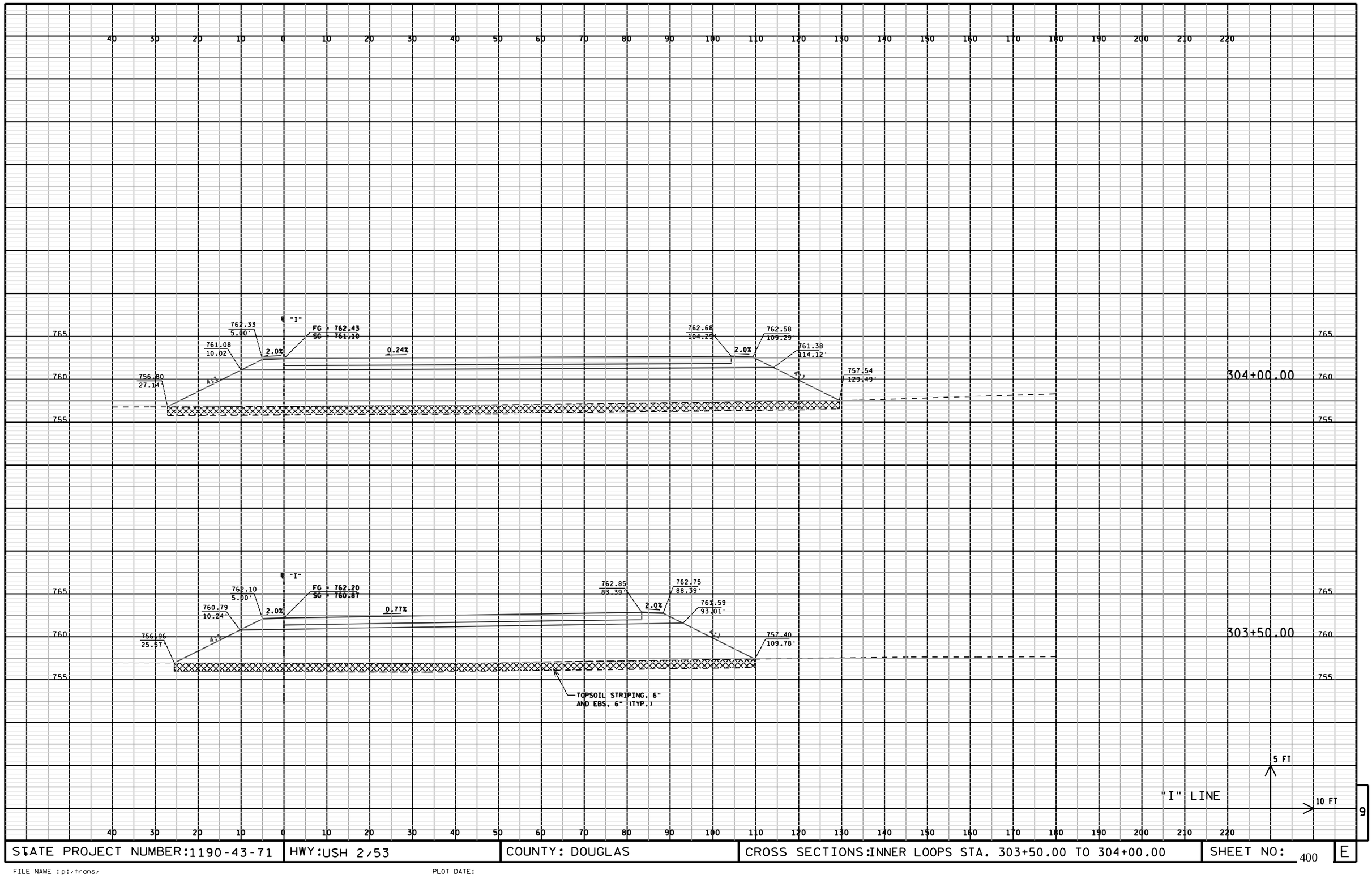
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS WESTBOUND RAMP STA. 326+50.00 TO 327+50.00	SHEET NO: 399	E

FILE NAME : p:/trans/

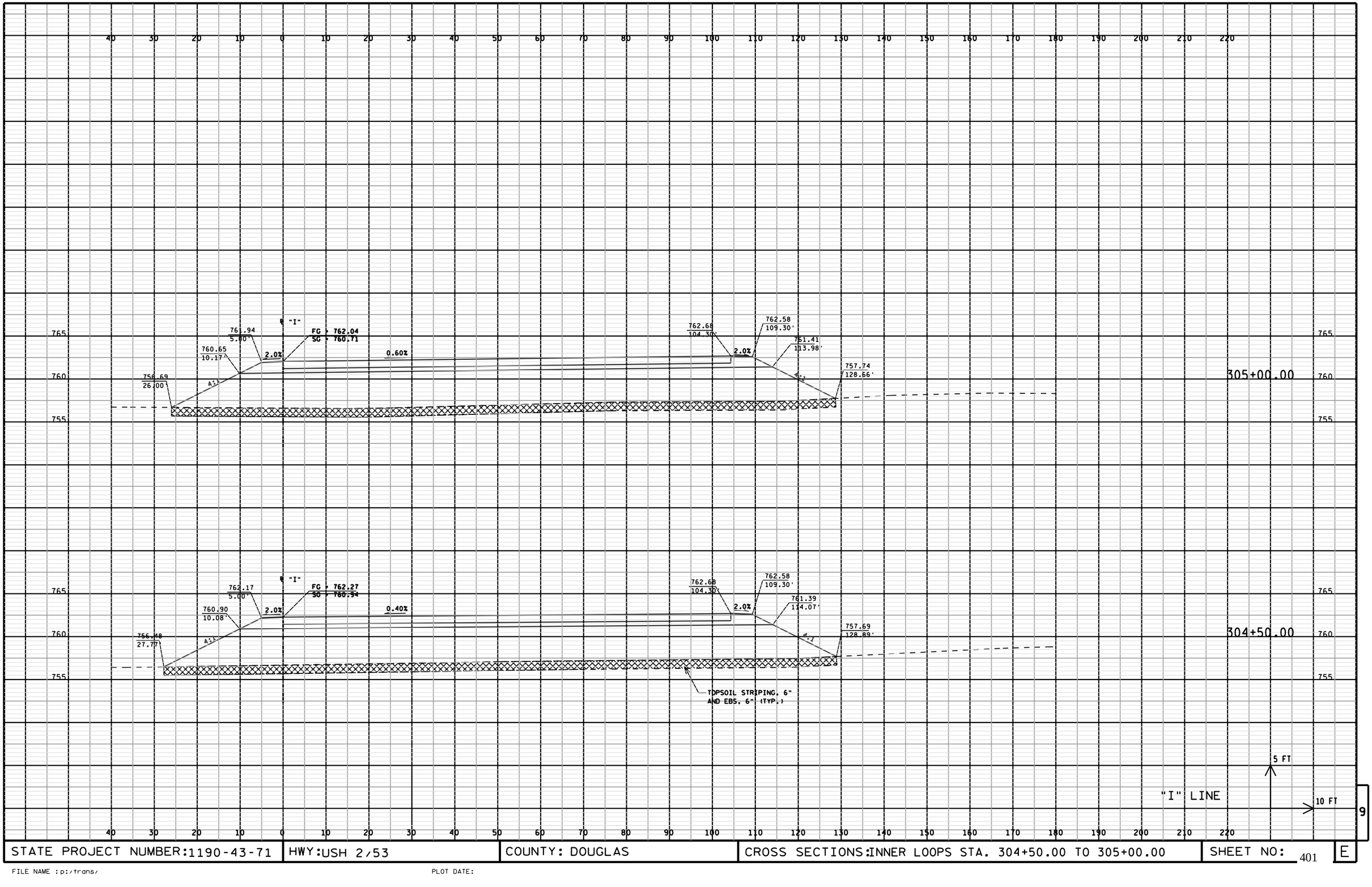
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:INNER LOOPS STA. 303+50.00 TO 304+00.00	SHEET NO: 400	E

FILE NAME : p:/trans/

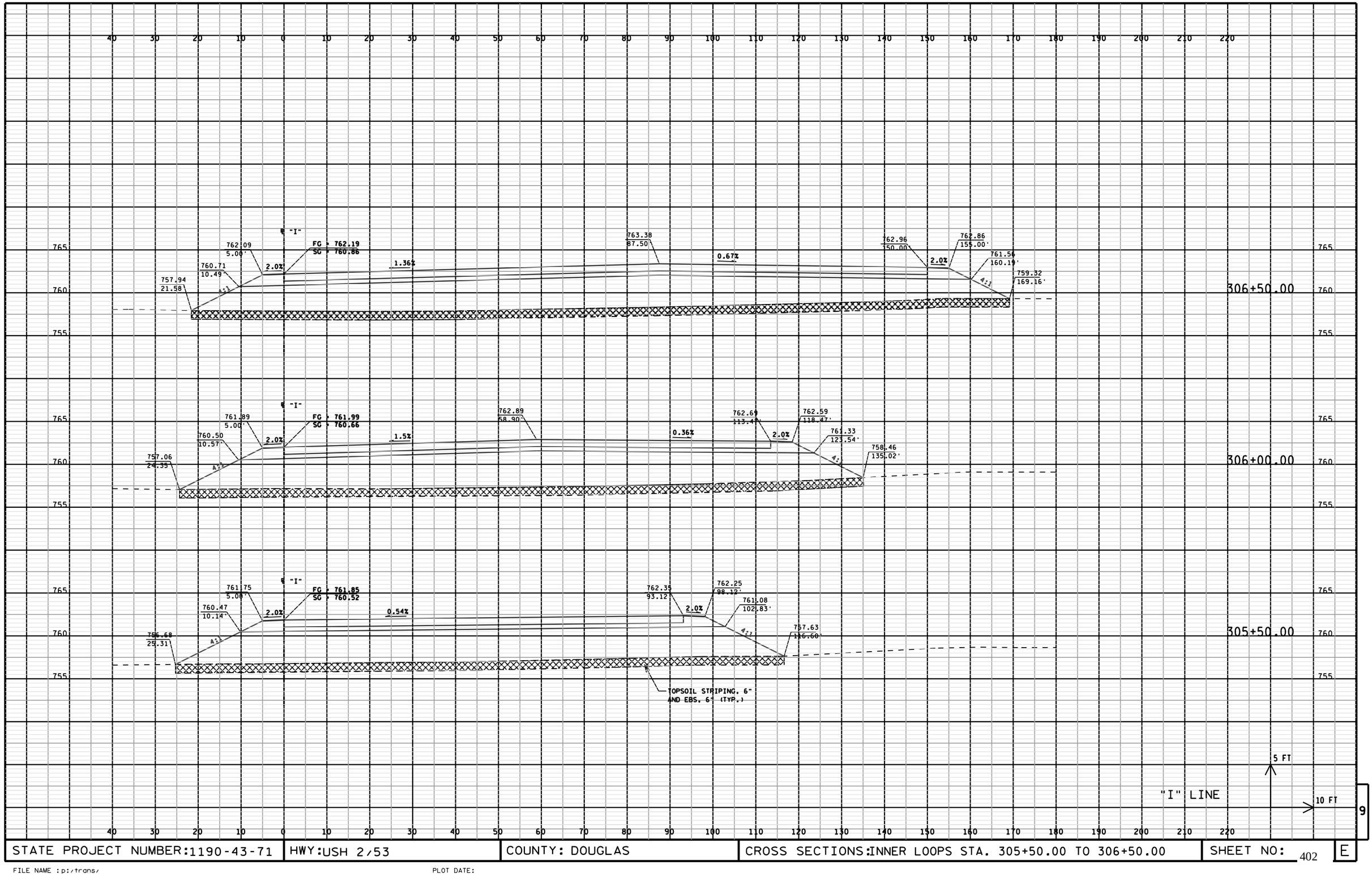
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:INNER LOOPS STA. 304+50.00 TO 305+00.00	SHEET NO: 401	E

FILE NAME : p:/trans/

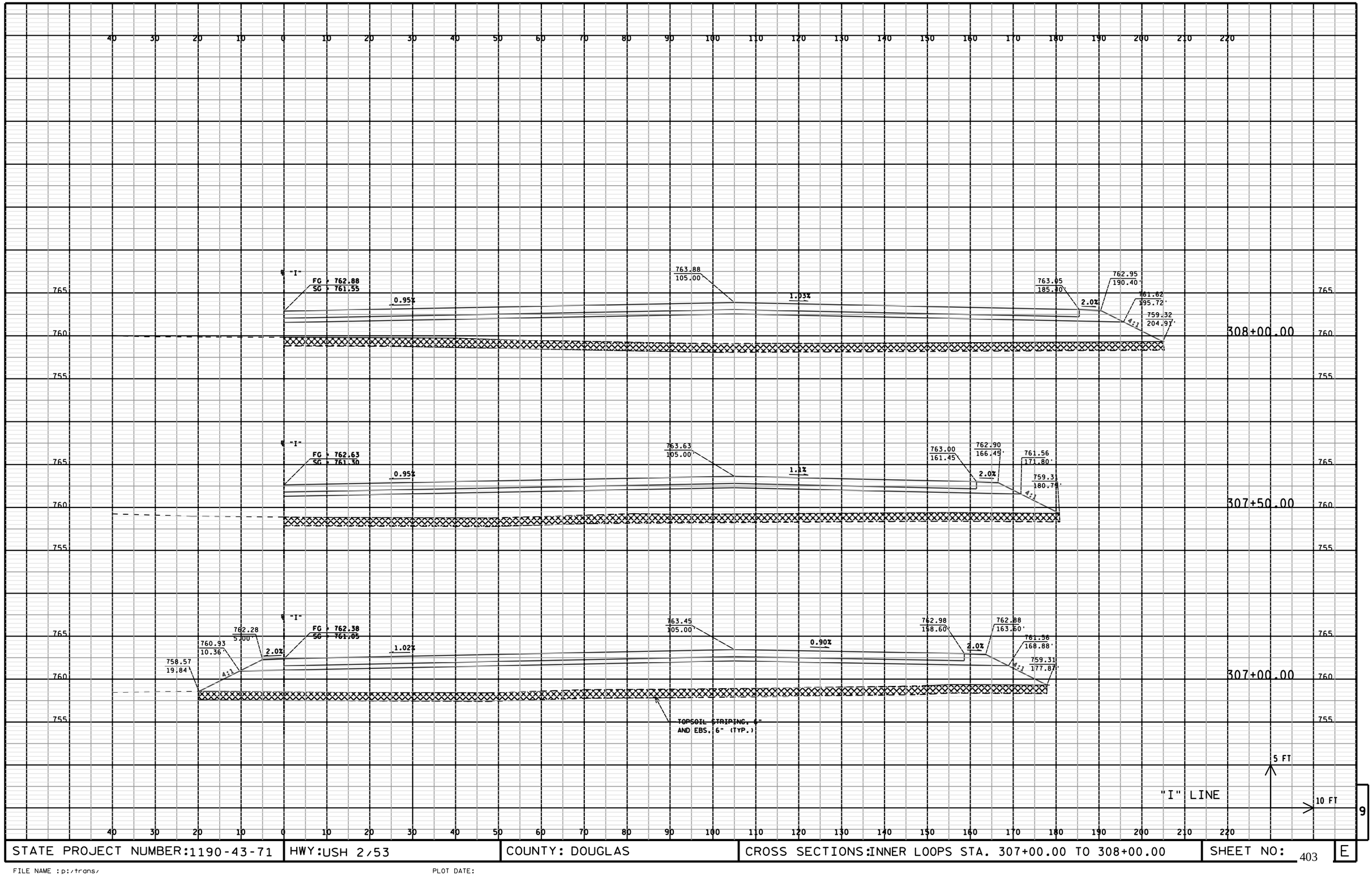
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:INNER LOOPS STA. 305+50.00 TO 306+50.00	SHEET NO: 402	E

FILE NAME : p:/trans/

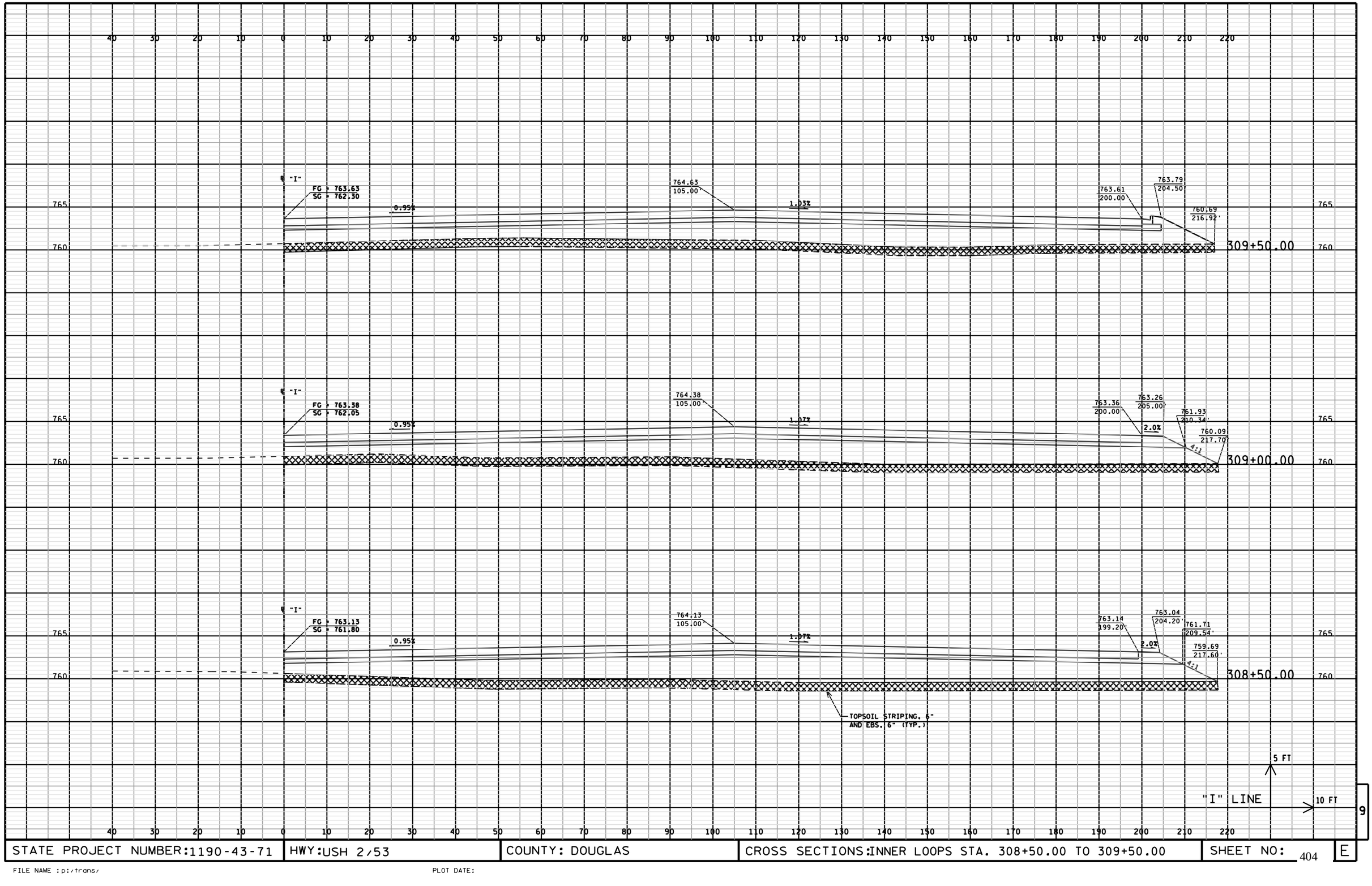
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:INNER LOOPS STA. 307+00.00 TO 308+00.00	SHEET NO: 403	E

FILE NAME : p:/trans/

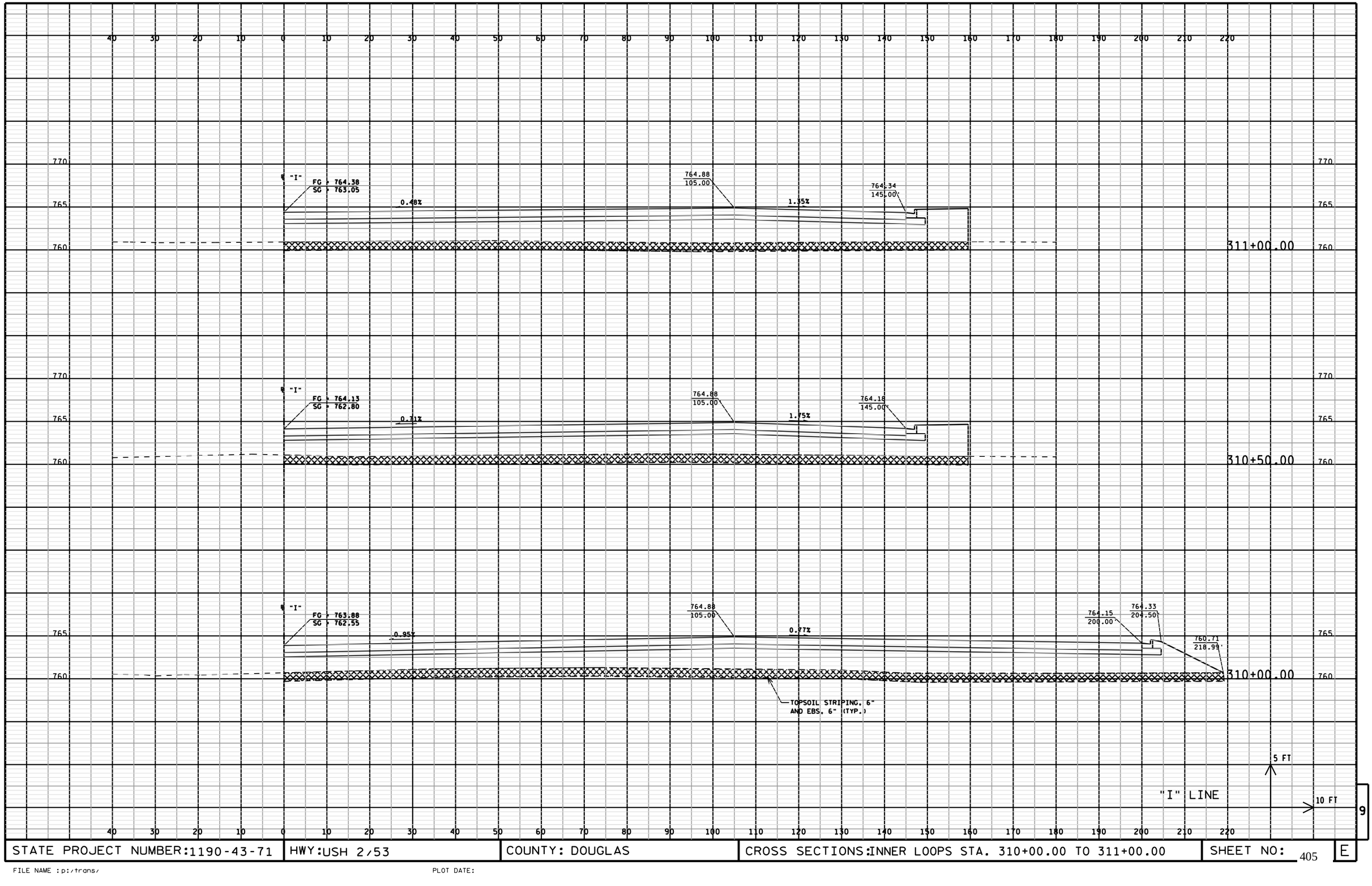
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:INNER LOOPS STA. 308+50.00 TO 309+50.00	SHEET NO: 404	E

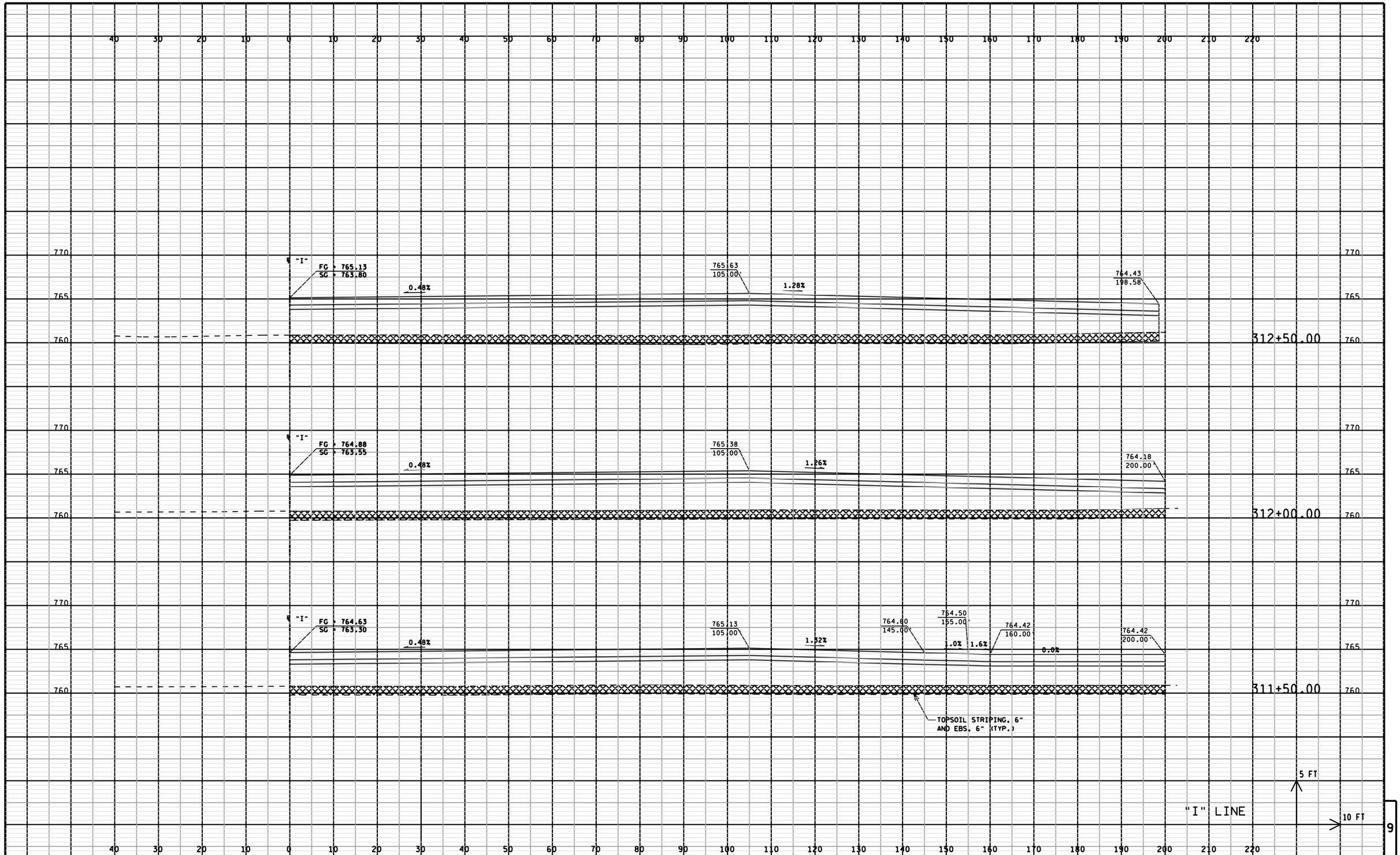
FILE NAME : p:/trans/

PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:INNER LOOPS STA. 310+00.00 TO 311+00.00	SHEET NO: 405	E

FILE NAME : p:/trans/ PLOT DATE:

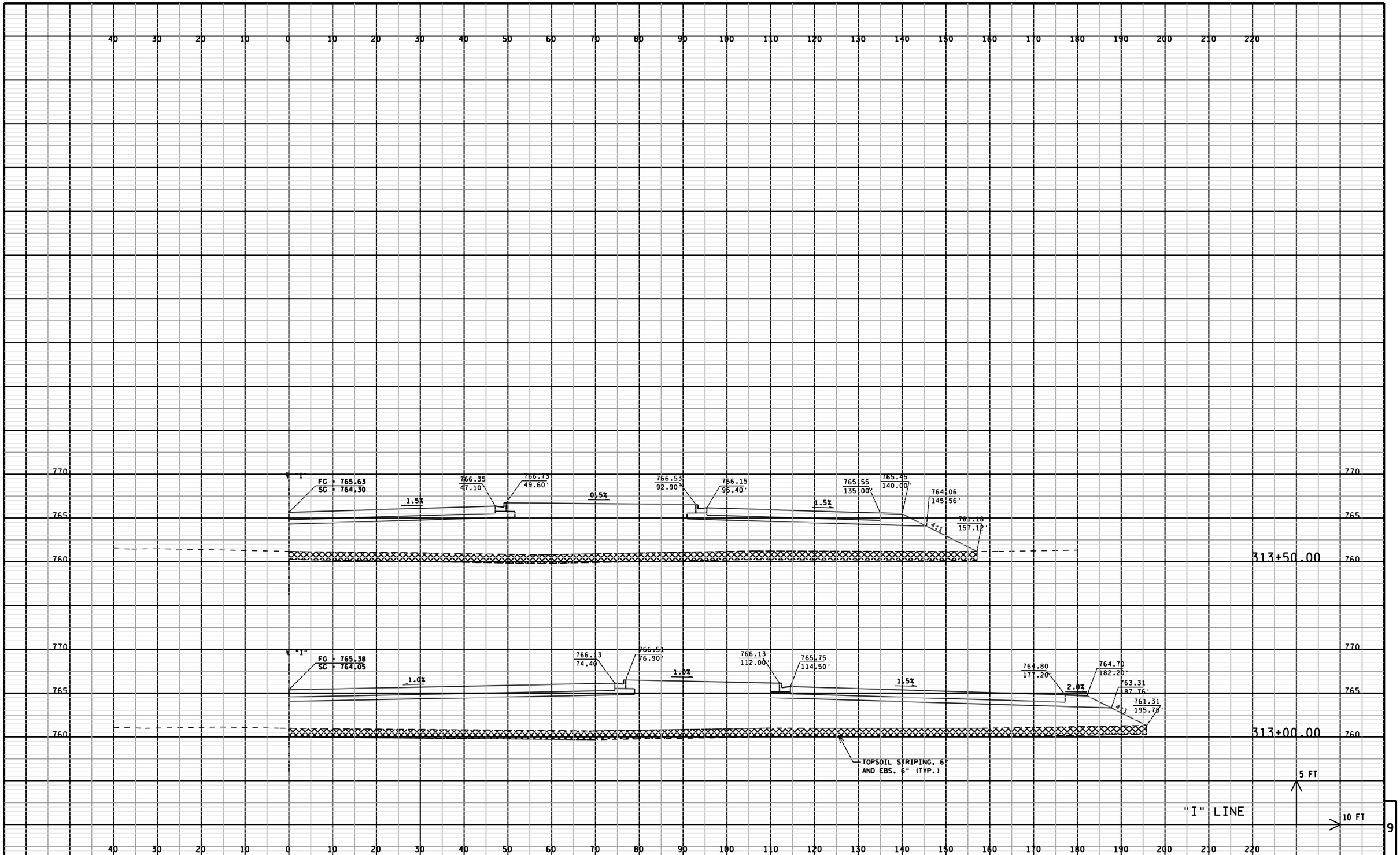


STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:INNER LOOPS STA. 311+50.00 TO 312+50.00	SHEET NO: 406	E

9

FILE NAME : p:/trans/

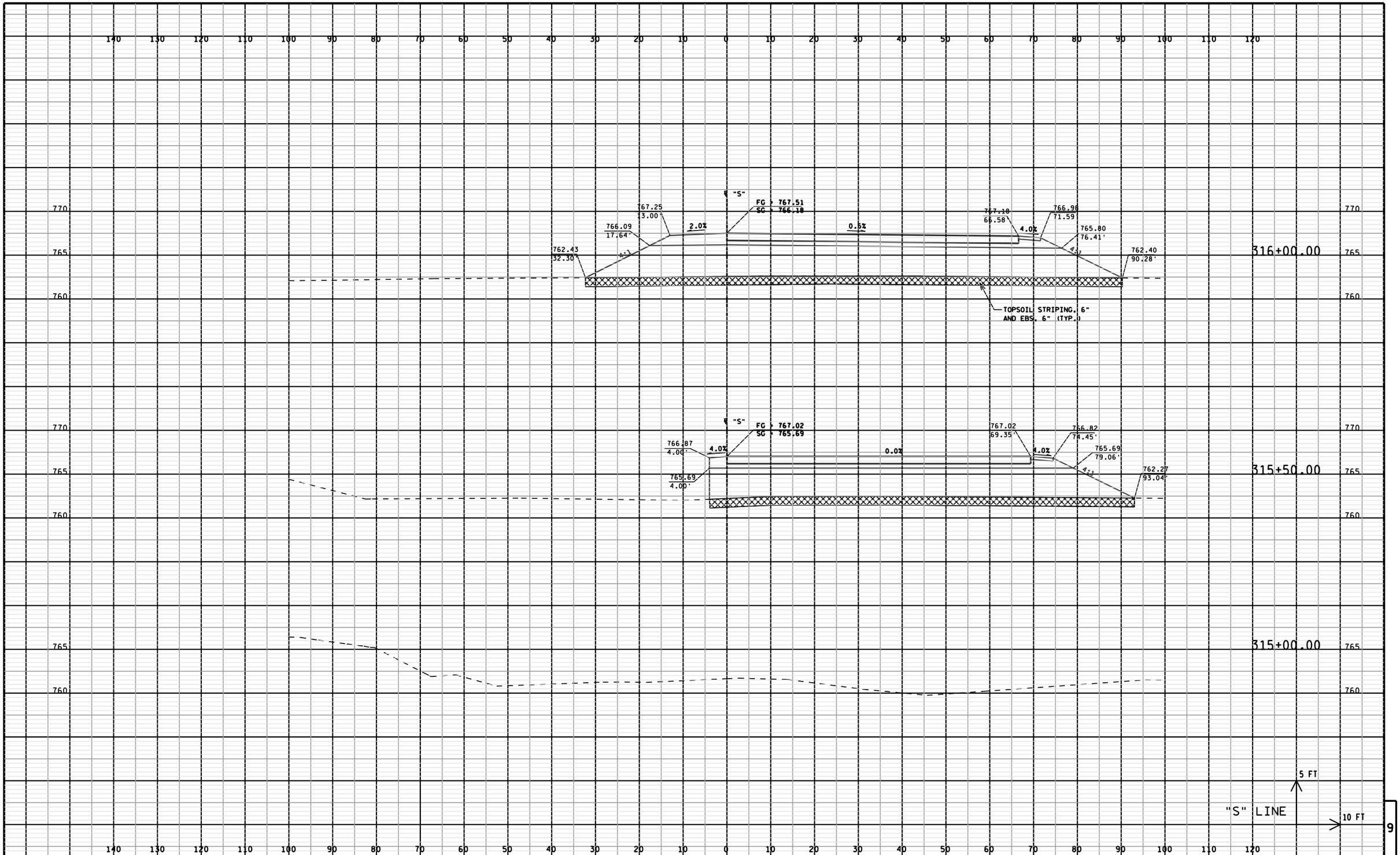
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: INNER LOOPS STA. 313+00.00 TO 313+50.00	SHEET NO: 407	E

FILE NAME : p:/trans/

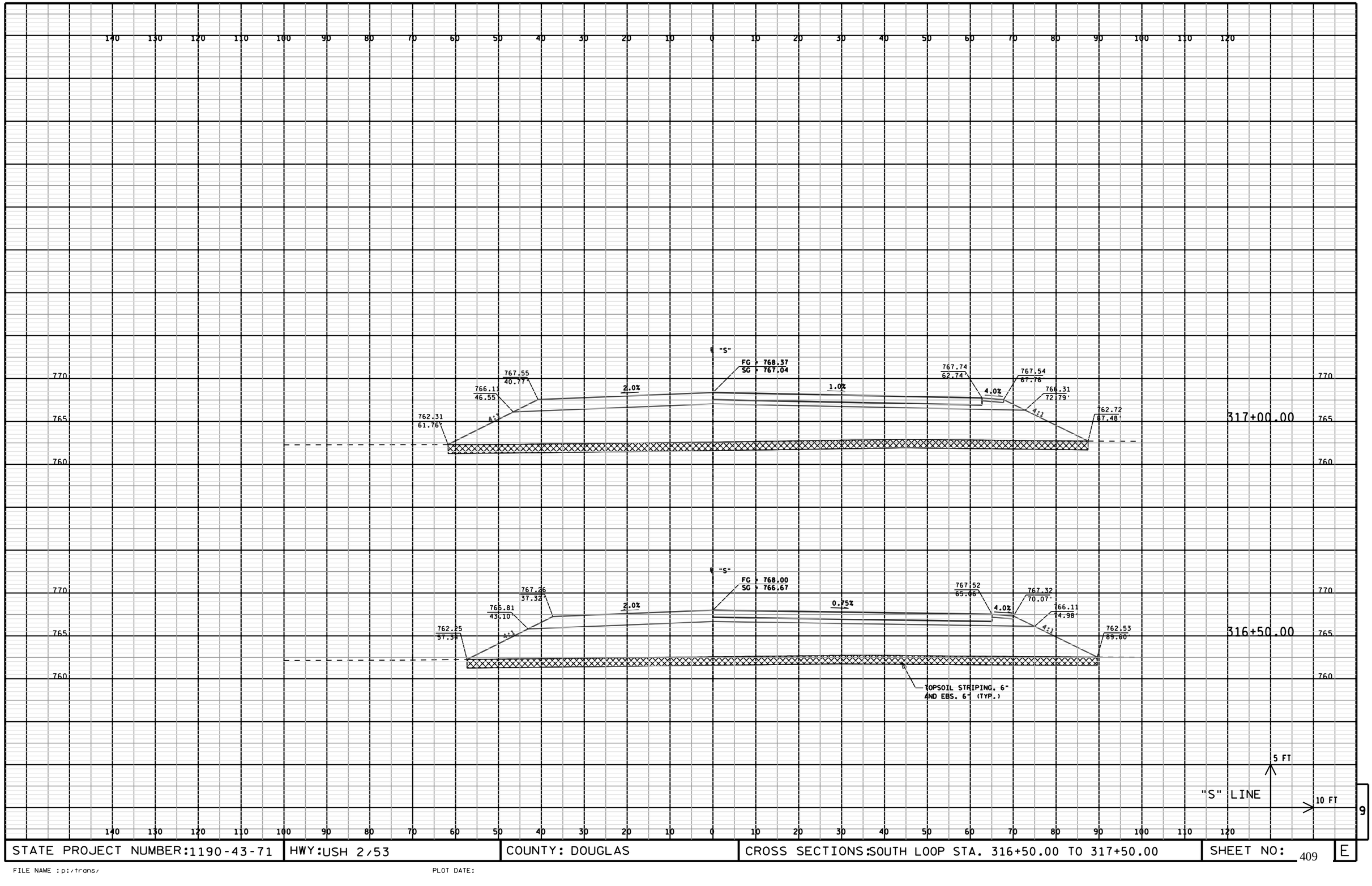
PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:SOUTH LOOP STA. 315+00.00 TO 316+00.00	SHEET NO: 408	E

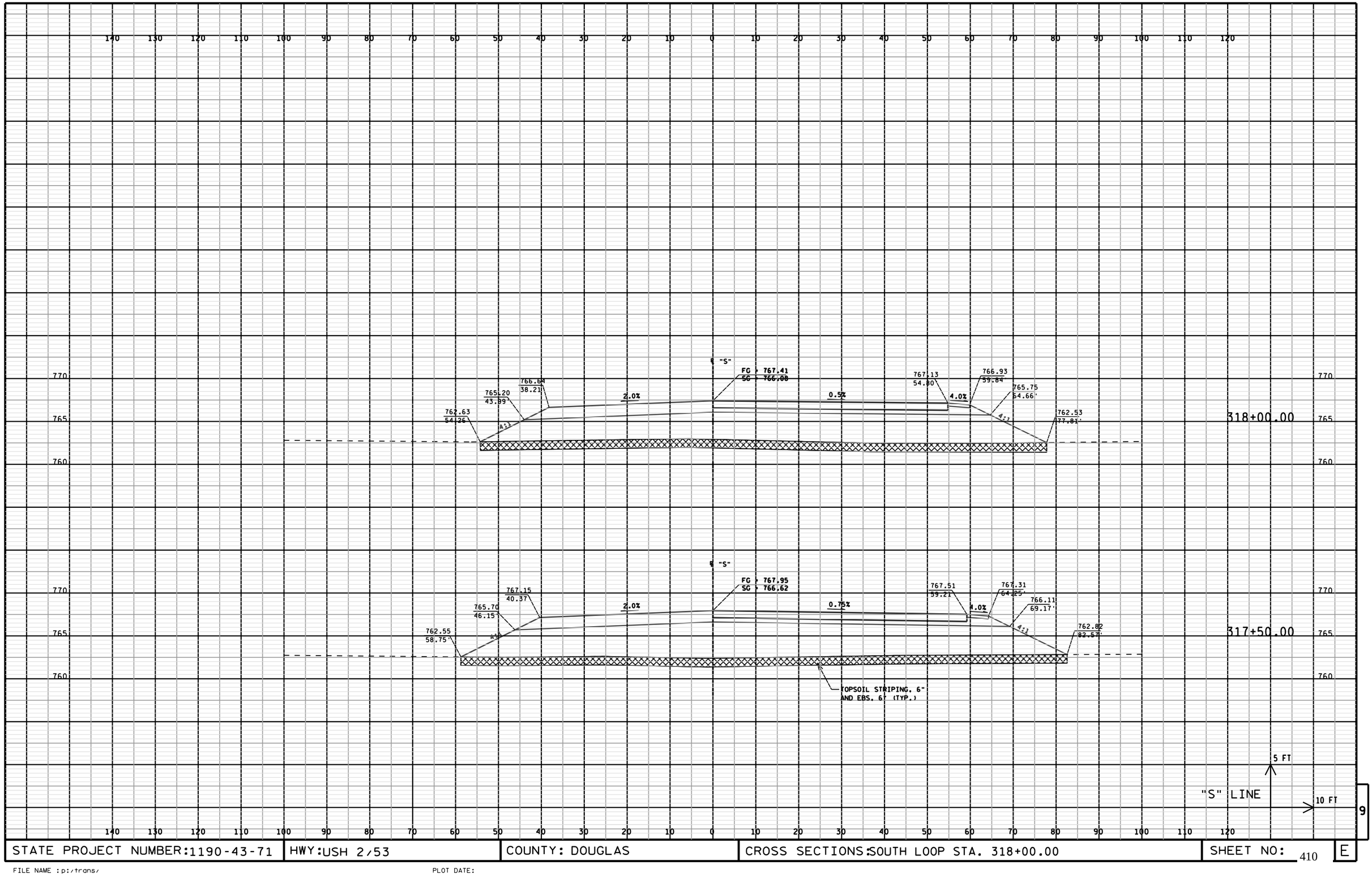
FILE NAME : p:/trans/

PLOT DATE:



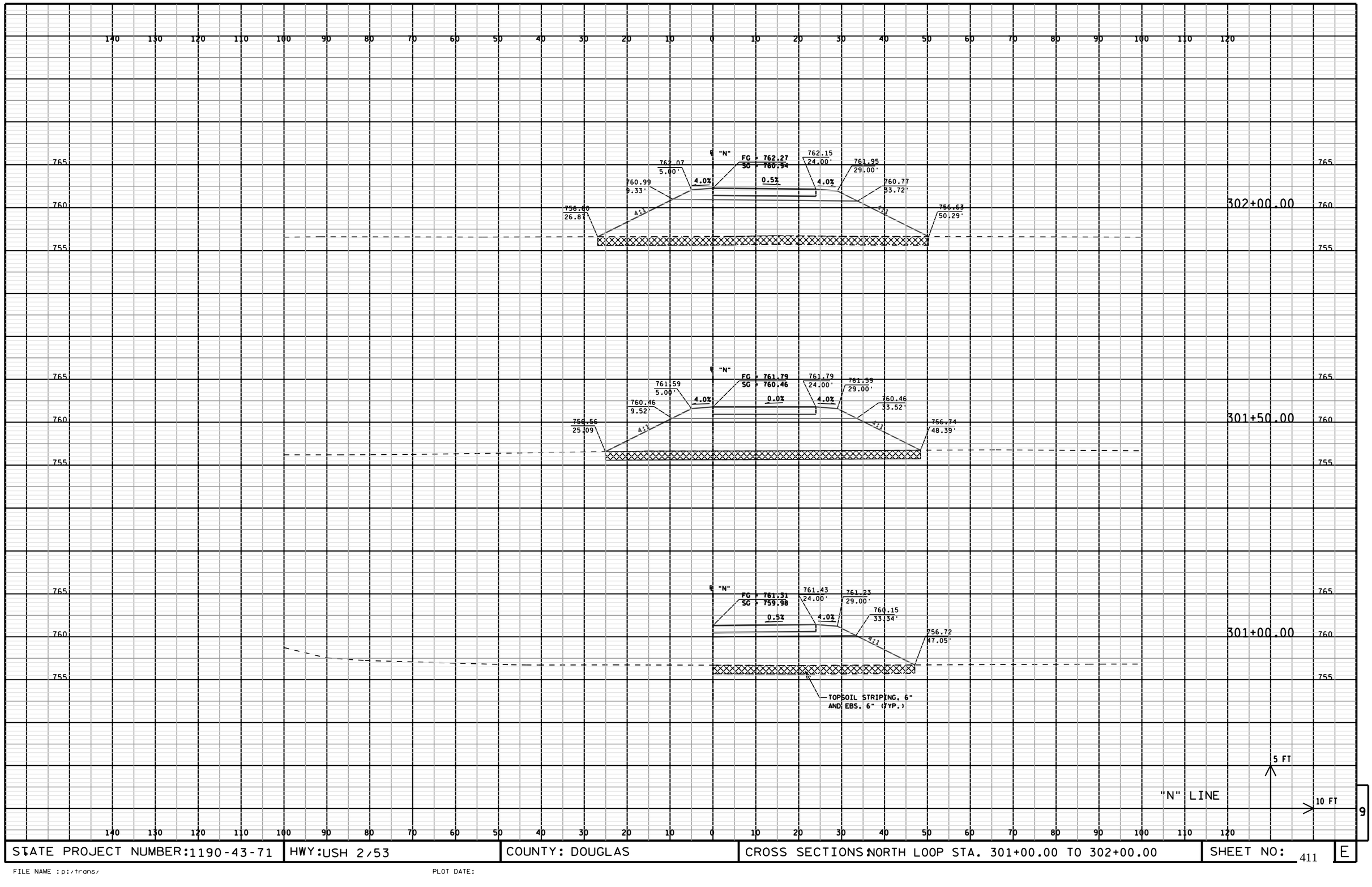
STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:SOUTH LOOP STA. 316+50.00 TO 317+50.00	SHEET NO: 409	E

FILE NAME : p:/trans/ PLOT DATE:



STATE PROJECT NUMBER:1190-43-71	HWY:USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS:SOUTH LOOP STA. 318+00.00	SHEET NO: 410	E

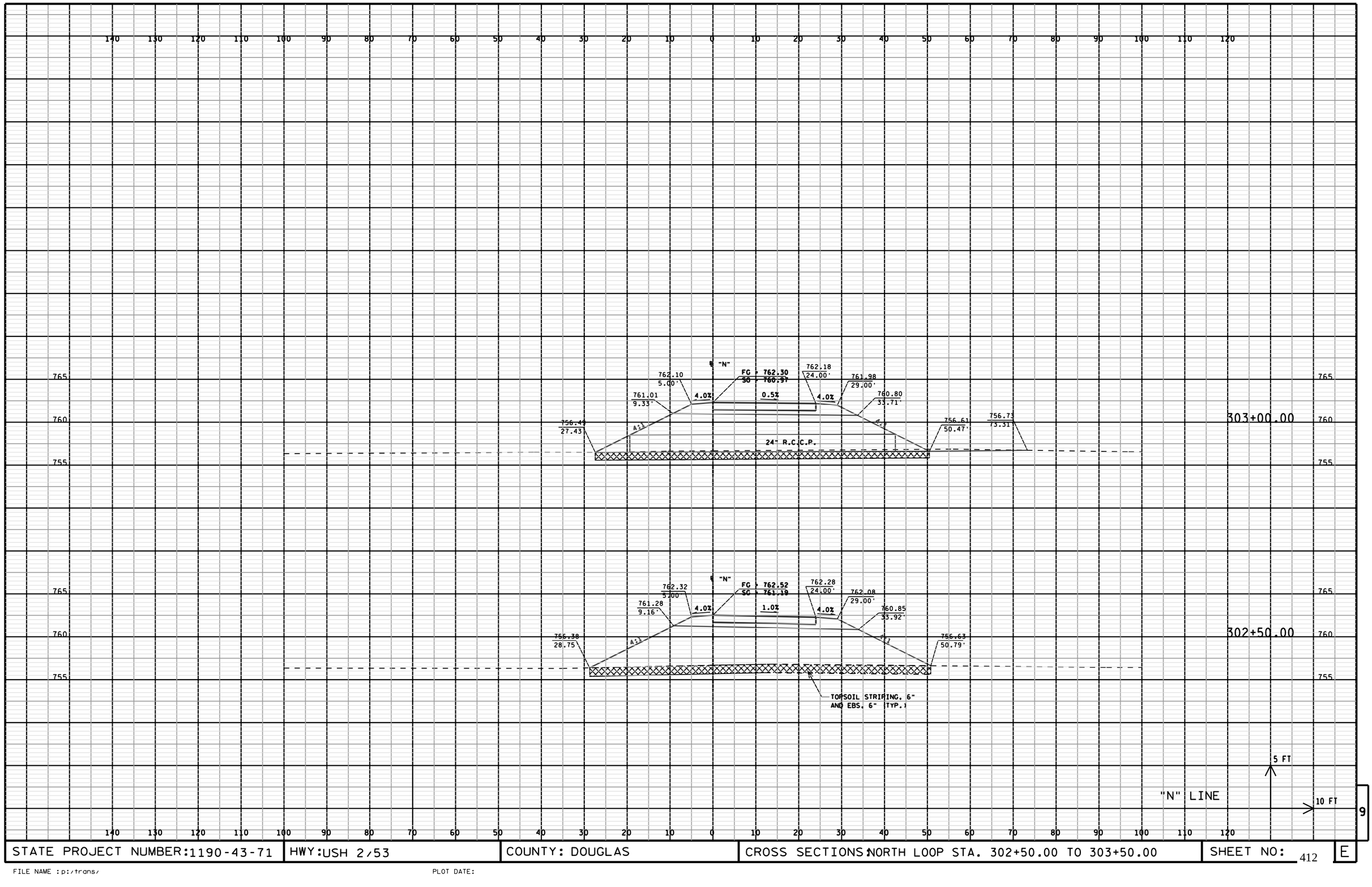
FILE NAME : p:/trans/ PLOT DATE:



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: NORTH LOOP STA. 301+00.00 TO 302+00.00	SHEET NO: 411	E

FILE NAME : p:/trans/

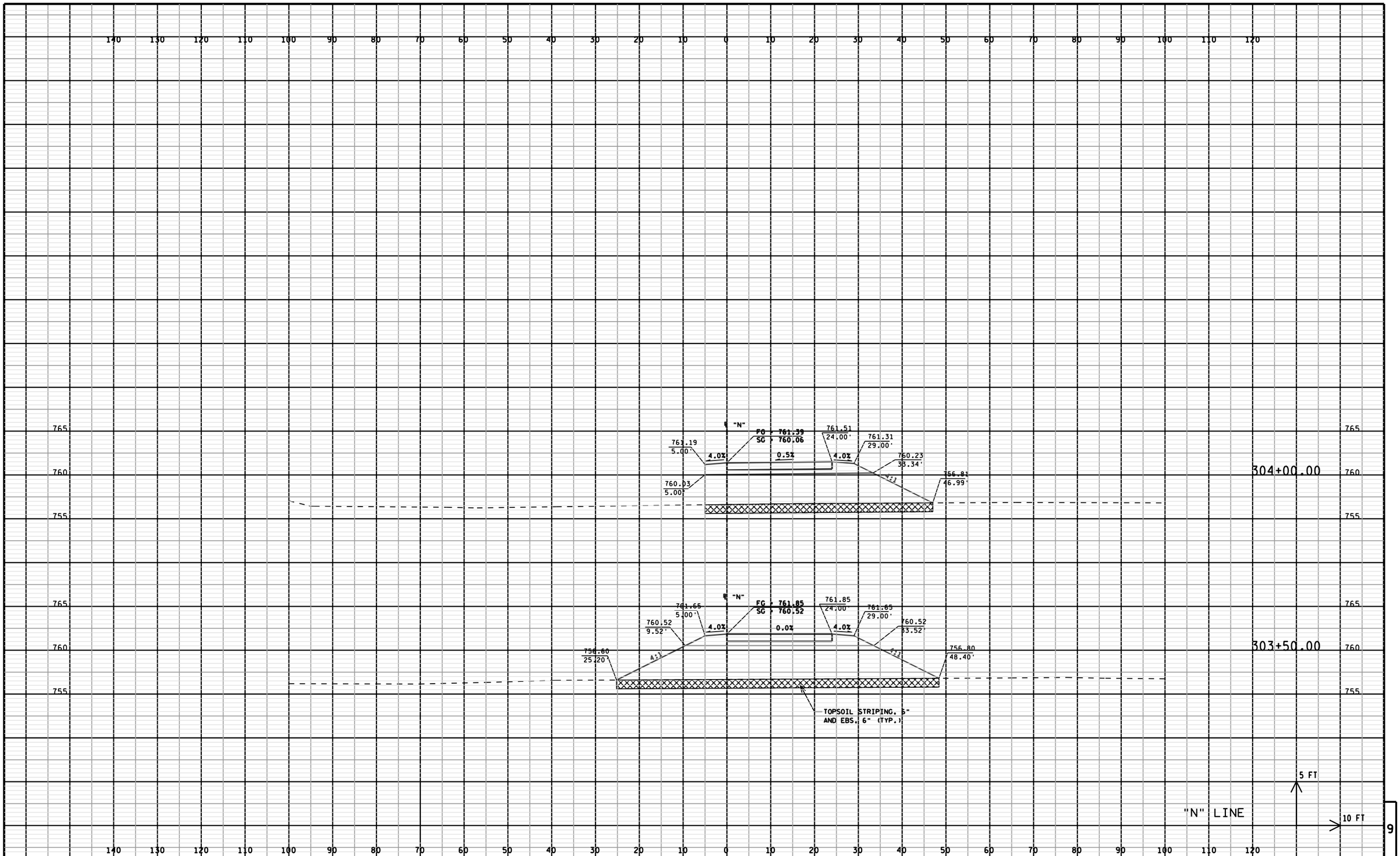
PLOT DATE:



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: NORTH LOOP STA. 302+50.00 TO 303+50.00	SHEET NO: 412 E

FILE NAME : p:/trans/

PLOT DATE:



STATE PROJECT NUMBER: 1190-43-71	HWY: USH 2/53	COUNTY: DOUGLAS	CROSS SECTIONS: NORTH LOOP STA. 304+00.00	SHEET NO: 413	E

FILE NAME : p:/trans/

PLOT DATE:

Wisconsin Department of Transportation

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